MANKIND

OFFICIAL JOURNAL OF THE ANTHROPOLOGICAL SOCIETIES OF AUSTRALIA

Vol. 5, No. 9 JULY, 1960 Price: 7s. 6d.

CONTENTS

PLATES V and W. ROCK ART IN CENTRAL QUEENSLAND

PLATE X. UNUSUAL ROCK MARKINGS IN AUSTRALIA

ORIGINAL ARTICLES:

ANTHROPOLOGY IN BRITAIN BEFORE AND AFTER DARWIN. J. A. BARNES .. 369

ROCK ENGRAVINGS, SYDNEY DISTRICT. Nos. 72-102. F. D. McCARTHY AND F. HANSEN 385

ROCK ART IN CENTRAL QUEENSLAND. F. D. McCARTHY 400

UNUSUAL ROCK MARKINGS IN AUSTRALIA. C. P. MOUNTFORD 405

REVIEWS:

Comparative Studies of North American Indians. H. E. DRIVER, W. C. MASSEY. (*F. D. McCarthy*) 408

Village Japan. R. K. BEARDSLEY, J. W. HALL, R. E. WARD. (*Mervyn Meggitt*) 409

CORRESPONDENCE, NOTES AND NEWS:

Bandjalang Tribal Memories. LYLE ROBERTS 410

Published by

THE ANTHROPOLOGICAL SOCIETY OF NEW SOUTH WALES,
C.o. The City of Sydney Public Library, George St., Sydney,
and

Registered at the G.P.O., Sydney, for transmission by post as a periodical.

The Anthropological Society of New South Wales

(Founded 1928)

OFFICE-BEARERS, 1960

President: Professor A. P. Elkin, M.A., Ph.D.

Vice-Presidents: Professor W. R. Geddes, M.A., Ph.D., F. D. McCarthy, Dip.Anthr.

Council:
R. W. MacKenzie, B.A., Mervyn Meggitt, M.A., Ph.D., D. J. Ryan, B.A., B.Litt., G. N. O'Grady, B.A., A. Capell, M.A., Ph.D.

Hon. Treasurer: F. L. S. Bell, M.A., c/o City of Sydney Public Library, Queen Victoria Buildings, George Street, Sydney.

Hon. Asst. Treasurer: F. D. McCarthy, Dip.Anthr., c/o Australian Museum, College Street, Sydney.

Hon. Secretary: Miss G. M. Bell, 12 Ray Street, Turramurra.

Editorial Committee: F. L. S. Bell (Editor), F. D. McCarthy, A. Capell.

Hon. Auditor: D. R. Wylie, A.C.A. (Aust.), A.C.I.S. (Eng.).

Anthropological Society of South Australia

(Founded 1926)

OFFICE-BEARERS, 1960

President: Dr. A. D. Packer. **Vice-President:** Mr. N. B. Tindale.

Council:
Professor A. A. Abbie, Mr. E. C. Bartlett, Dr. E. C. Black, Professor G. H. Lawton, Mr. T. G. Strehlow.

Hon. Librarian: Dr. P. G. Dellow.

Hon. Treasurer: Mr. E. V. Dix, Box 12, P.O., Aldgate, S.A.

Hon. Secretary: Mr. J. A. Cran, c/o Department of Dentistry, University of Adelaide, South Australia. (Tel. W 3211.)

MANKIND

OFFICIAL JOURNAL OF THE ANTHROPOLOGICAL SOCIETIES OF AUSTRALIA

Vol. V, No. 9. July, 1960

ORIGINAL ARTICLES:

Anthropology: General. **Barnes.**

Anthropology in Britain Before and After Darwin. *By Professor J. A. Barnes, M.A., D.Phil., Department of Anthropology and Sociology, Australian National University.*

I

A hundred years ago anthropology in Britain was apparently in a parlous condition. Darwin and Wallace read their famous papers to the Linnean Society in 1858; in that year the annual general meeting of the Ethnological Society of London, the learned body in Britain primarily concerned with anthropology, was attended by only seven members. In 1872, fourteen years later, interest in anthropology was more widespread. Membership of the reconstituted Society, known as the Anthropological Institute, had risen to 585.[1] Most commentators are agreed that the publication of Darwin's *Origin of Species* was one of the incidents that stimulated this growth of public interest. Contemporary writings from 1860 onwards show that Darwin's views were known to the miscellaneous band of naturalists, travellers, theologians and philanthropists who were interested in anthropology. Huxley, who early rallied in support of Darwin, was closely associated with anthropology and was President of the Ethnological Society for several years. Yet it is clear that Darwin was far from being the promoter of mid-century anthropology. Darwin's views, as they impinged on the origin of man and on his physical and social development, were as often attacked by anthropological writers as they were defended. Furthermore, a number of outstanding works were published during this period which, although having a profound effect on anthropological thinking, had little if anything to do specifically with Darwin's thesis. Finally, many of the ideas which Darwin put forward were already current in anthropological discourse and had been expounded and examined long before. In the popular view Darwin came to personify a new approach to the world of man and nature. He became a target of reactionary attack as well as a symbol for the new enlightenment. Yet his contribution to the development of the social sciences was made through the stimulus he gave to others rather than through his own writings. Indeed, so far as substantive ideas are concerned, his direct contribution must rest on his later works, *The Descent of Man* (1871) and *The Expression of the Emotions in*

[1] A. Keith, "How Can the Institute Best Serve the Needs of Anthropology", *Journal of the Royal Anthropological Institute*, XLVII (1917), pp. 16–22.

Man and Animals (1872), where he was more explicitly concerned with those social issues which are only latent in the *Origin of Species*.

The mid-century intellectual ferment which led to the development of anthropology must, like Darwin's own work, be seen against the background of ideas about evolution and progress, and even of the survival of the fittest, that had been circulating in Europe for a hundred years or more before 1858. Indeed, we would be wrong in assuming that even these often vague and imprecise notions were peculiar to that particular period in the development of Western science and learning. It has been pointed out that the views of the universe advocated by classical writers like Heraclitus and Lucretius have a generic similarity to those advanced by Darwin, and developmental and evolutionary ideas occur frequently in the history of Western thought. It has been suggested that in broad terms there are only three alternatives we need to consider when comparing the present with the past. Either the past is like the present ; or the present became what it is through some act of creation ; or there is a process of change or development, gradual or otherwise, which links the past with the present.[2] The theory of evolution belongs to the third category, along with many other theories. Indeed, some of the stories of the creation of the universe and the development of the world that are found in the religions of primitive peoples are essentially evolutionary in character. The idea of evolution was then not novel when put forward by Darwin, even if the way in which he utilized the idea was new. He differed from the earlier evolutionary theorists not so much in the general principles he proposed as in the weight of empirical evidence used in support of his theory, and in the comparative plausibility of the mechanisms he suggested for effecting the evolutionary process.

II

Although his views met with great opposition among the public at large, Darwin was presenting them to an audience who during the previous fifty years or more had seen one after another fundamental dogma in the traditional interpretation of the history of man shaken if not overthrown. The orthodox eighteenth-century view of human history had been grounded on the classical writers from Homer onwards, and on the Old Testament as interpreted at the beginning of the seventeenth century by Archbishop Ussher. The world was created in 4004 B.C. The several races of men are descended from the sons of Noah. Diverse languages originated at the building of the Tower of Babel. The only cradle of high civilization was in the eastern Mediterranean. Into this simple framework was fitted the evidence that gradually accumulated about the peoples of Asia, Africa and America. There were rival theories about the characteristics of antediluvian man, and of the way in which civilization had first begun, but the main tenets of orthodoxy were still widely accepted down to the end of the eighteenth century. Then one by one they were challenged not so much by rival doctrines as by fresh evidence.

One of the first attempts to probe beyond the mists of Homeric antiquity with any tool other than speculation was made in philology. In 1786 Sir William Jones, speaking in Calcutta, pointed out that Sanskrit had certain similarities with Greek, Latin, Celtic and other European languages, and suggested that these diverse languages must have originated

[2] A. A. Goldenweiser, *Anthropology* (New York, 1937), p. 496.

from some common source which perhaps no longer exists.[3] This suggestion started off a line of enquiry into this postulated source language and into the physical and social characteristics of the people who had spoken it. From the Middle Ages on it had been realized that etymology provided a key to tracing the changes in meaning of a word through the centuries, and to tracing the historical and prehistorical links between people who spoke similar languages. It was easy to show that European languages develop and change through time in an orderly and systematic fashion. However, the effect of Jones's observations was to open up a much wider range of linguistic enquiries, and to stress that a language was an entity which in some sense existed apart from the people who spoke it, and was subject to laws of development and growth analogous to those operating on a living organism. Interest was aroused in the early writings of India, and in the myths and fairly stories handed down from generation to generation in various countries. Similarities were discovered between the mythology of the Scandinavian and other European languages, and speculation developed about how these likenesses had come about, and how distant in time was the postulated common source of the myths. When man first appeared, did he possess a language ? If he did, what relationship did it bear to any known language of to-day ? If early man, like the apes, could only grunt and grimace, how was language ever invented ? What was the relation of gesture to language ? Was it true that North American Indians could not communicate with one another in the dark, when gestures could not be seen even though speech could be heard ? These and many other questions were admirable topics for speculative writing and argument ; we might now well say that many such questions can never be finally settled. But interest in these topics encouraged thinkers everywhere to take a broad view of human development and diversity which could not be fitted easily into the older world-picture of the human past leading back along only two trails, one terminating with Homer and the other with Adam.

Just as the study of language encouraged men to look beyond Europe and classical antiquity, so the findings of archæology had a profound effect on beliefs about the time span and scope of human development. It is commonplace nowadays to read that human skeletal remains as well as artifacts in stone, bone, pottery and other durable materials have been found in the earth in association with geological deposits of a known age. However, it was not until the nineteenth century that artifacts undeniably human were found in association with human remains in localities that were uncontestably prehistoric. Flints fashioned into implements were discovered in Europe from at least the sixteenth century onwards, but these were sometimes attributed to fairies, just as neolithic axe-heads had in the Middle Ages been described as thunderbolts.[4] An ancient human skull was discovered in Germany in 1700, but it was not until 1838 that flint implements were discovered at Abbeville in France in geological deposits of great age. Even so, their antiquity was not accepted by the scientific world until some 20 years later. In 1832 human remains were found clearly in association with bone and flint implements in a cave near Liège, but again the evidence of man's antiquity was at first rejected.

Lyell's *Principles of Geology*, published in 1830, established the stratigraphical method by which temporal sequences could be inferred. He divided the geological past into four epochs according to the proportion of fossils of extinct and extant species. The Swiss glaciers

[3] R. R. Marrett, *Tylor* (London, 1936), p. 44.
[4] A. C. Haddon, *History of Anthropology* (London, 1934), p. 80.

were studied by Agassiz, who in 1840 demonstrated that the glaciers had advanced and retreated several times in the past with changes of climate. These geological investigations provided a temporal sequence into which the skeletal remains of early man and of creatures who closely resembled man could be fitted. For a long time the geological sequence was not defined in years; one epoch was said to precede another, but the duration of the successive periods was left unstated. Nevertheless it was clear that the geological process extended for hundreds or thousands of years, and that man must have existed on earth for at least tens of thousands of years. The palæontological evidence was of two kinds. Stones that had, with varying degrees of precision, been fashioned into tools were found in geological deposits of known antiquity, often in association with the fossilized remains of plants and animals now extinct. It was argued that these tools could have been made only by man, or by some now-extinct creature similar to man, and that therefore man or proto-man must have been a contemporary of the extinct animals. The other kind of evidence was skeletal remains of man himself. The important discoveries of man-made tools in association with extinct mammals were made by Boucher de Perthes during the 1830's, and were accepted by the scientific world when Lyell gave his approval at the British Association meeting in 1859. In 1857 Schaffhausen discovered the first skeleton of Neanderthal man, and its status as an example of a primitive race of mankind was accepted by Huxley in 1863.[5]

The evidence for the antiquity of man as a maker of tools and a user of language was reinforced by proof that at least for several millennia there had been living in the Nile Valley civilized men practising agriculture and writing and enjoying centralized government. The great antiquity of the civilizations of ancient Egypt was first brought to public notice in the West by Napoleon's expedition of 1798–1801. The Rosetta stone which was brought back was deciphered in 1821 and the way was opened for understanding the mass of hieroglyphic inscriptions and through them the sequences of cultures that flourished in the Nile Valley. Although an acceptable chronology was not worked out until 1898 by Petrie, it was soon clear that Egyptian civilization could not easily be fitted into the accepted Biblical chronology. Excavations at Nineveh began in 1843 and by the end of the century a wealth of archæological material had been gathered from the Middle East which amplified and in part corroborated the Biblical record.

Even though the quantitative methods of dating we now use, dendrochronology, carbon-14 dating, and fluorine analysis, were not developed until the twentieth century, and it was therefore difficult to give a precise date to proto-historic events in the Middle East, some estimate of approximate age was possible. It became clear that Ussher's chronology was quite untenable.

A further piece of evidence for the complexity of the prehistory of Europe was provided by the remains of buildings built on piles on the shores of lakes. These were investigated in Ireland, and the results first published in 1840. In 1853–54 an unusual drought revealed the remains of dwellings built on piles in a lake near Zurich, and pottery, polished stone axes, bronze and human and animal bones were found in association. The former inhabitants of these dwellings had been farmers and had practised weaving; they were not savages. Yet they could not be identified with any of the early peoples of Europe mentioned by the historians of classical antiquity.[6]

[5] Cf. C. C. Gillespie, *Genesis and Geology* (Cambridge, Mass., 1951).
[6] R. H. Lowie, *The History of Ethnological Theory* (London, 1937), p. 22.

III

It was therefore in a world where previously accepted ideas about the human past were being challenged on many fronts that anthropology, or ethnology as it was then often called, emerged as a distinctive field of study in the first half of the nineteenth century. A preoccupation with the discovery of the remote past runs all through nineteenth century anthropology and has not entirely disappeared in the twentieth century. Yet the precipitating cause for founding the Ethnological Society in London came from the contemporary scene, and not from the past. The great humanitarian movement that led in 1833 to the abolition of slavery throughout the British Empire stimulated popular interest both in the continuing welfare of native races and in the scientific explanation of why they differed so markedly from European man in culture as well as in physical form. In 1837 the Aborigines' Protection Society was founded to promote native welfare ; six years later some of its members broke away to found an association for the scholarly study of the various races of mankind. This body, the Ethnological Society, later elected Darwin one of its honorary members. Atlhough it professed to be purely scholarly, many of the issues it dealt with were contentious, and its members were often divided. Thus in 1863, during the American civil war, those who sympathized with the South, together with others who opposed the efforts of Christian missionaries to convert the heathen, broke away to form their own organization. The split was not finally healed until 1876. Indeed, from the outset, the responsibilities of empire were always fairly closely intertwined with the pursuit of knowledge for its own sake. In the very first issue of the Ethnological Society's journal, Dieffenbach wrote : " . . . let us hope that the Science of Man . . . will not only be supported by those who pursue sciences which will be mostly benefited by a more extensive study of the physical history of man—by the politician, the physician, the historian and the artist—but also by those to whom a knowledge of man must be of great interest and vital importance from their connections with the Colonial possessions of this great Empire."[7]

The trend of political events in the nineteenth century appeared to support the truth of the doctrine of the survival of the fittest and to verify the contentions of Malthus about the struggle for existence. Throughout the century, despite local setbacks, the tide ran strongly in favour of the Great Powers of Europe and against the seemingly weaker peoples of Africa, Asia and the Pacific. In North America, the westward moving frontier was evidence that the superiority of Aryan or Caucasian man, the White race, was maintained even when transplanted to another continent. Everywhere lesser breeds without the law, as Kipling said, were being brought under the control of the white man. There were many to argue that it was wrong that this should be so, and many more who said that although the White man was born to rule, he had therefore a great responsibility to protect those weaker brethren that the turn of fate had placed under his care ; he even had a duty to train them so that they too could enjoy the fruits of *his* civilization. But whatever view was taken, as the century advanced the map showed a larger area of the world marked in British red, or French blue or assigned to the other European powers. In 1800 there were few places in Africa more than 100 miles from the coast where Europeans were in command. By 1914 the whole of the area south of the Sahara was at least nominally under European control. At home, the major

[7] E. Dieffenbach, " The Study of Ethnology," *Journal of the Ethnological Society of London*, I (1848), pp. 15–26.

social changes brought about by the industrial revolution produced a great increase in the spatial and social mobility of populations, in which it was often only too plain that the weakest must go to the wall. Thus the stage was set for the easy acceptance of a view of life in which the relative predominance of groups of men and animals was continually shifting as they competed with one another and as external conditions changed.

It is well known that many of the notions which Darwin put forward were arrived at independently by Wallace. The doctrine of " the survival of the fittest " was proposed by Herbert Spencer, who began publishing his treatises in 1850. It is often overlooked that several of Darwin's ideas were advocated a couple of decades before *The Origin of Species*, by Prichard, a physician of Bristol, who began in 1813 to published his *Researches into the Physical History of Man.*[8]

In 1826 Prichard discussed the inheritance of albinism and polydactyly. He pointed out the difference between artificial selection, as practised by the breeder of sheep, cattle and other domestic animals, and natural selection, in which climate was, he maintained, the strongest discriminating factor. He distinguished between inbred or spontaneous tendencies and changes induced by external conditions. He wrote : " Inbred or spontaneous tendencies, governing the future evolution of the bodily fabric, cause it to assume certain qualities of form and texture at different periods of growth. From these predispositions are derived the characteristic differences, and the peculiarities of individual beings. Now it appears that such spontaneous tendencies are alone hereditary, and that whatever changes of organism are superinduced by external circumstances, and are foreign to the character of the structure impressed upon the original stamina, cease with the individual, and have no influence on the race . . . Whatever varieties are produced in the race, have their beginning in the original structure of some particular ovum or germ, and not in any qualities superinduced by external causes in the progress of its development."[9] It seems certain that Darwin never read this passage, and it was not until some seventy years later that this anticipation of Darwin's work was explicitly pointed out.[10] Prichard, however, was aware of Darwin's earlier accounts of his voyages, and considered that they added to our understanding of the history of human races and languages.[11] Prichard was at the centre of the group who founded the profession of anthropology in England, was president of the Ethnological Subsection when it first made its appearance at the 1846 meeting of the British Association for the Advancement of Science, and was President of the Ethnological Society. Although he died in 1848, his writings continued to influence anthropological thought and argument. When in the '60s anthropologists discussed in their own journals the connexion of the various races to one another, and their possible descent from a single pair or from several original pairs already differentiating according to race, it was against the background of Prichard's writings rather than those of Darwin or Wallace that the arguments took place. In the public debates that characterized the British Association meetings of the '60s, Darwin's views naturally received greater attention.[12]

[8] Cf. Leslie A. White, *The Science of Culture* (New York, 1949), p. 295.

[9] James Cowles Prichard, *Researches into the Physical History of Man*, 2nd ed. (London, 1826), cited in T. K. Penniman, *A Hundred Years of Anthropology*, 2nd ed. (London, 1952), p. 80.

[10] E. G. Poulton, " A Remarkable Anticipation of Modern Ideas of Evolution," *Science Progress, London*, VI (1897), pp. 278–296.

[11] J. C. Prichard, " Anniversary Address for 1848," *Journal of the Ethnological Society of London*, II (1850), p. 120.

[12] Cf. Alvar Ellegård, *Darwin and the General Reader* (Göteborg, 1958), Chap. 4.

Prichard was supported by Sir William Lawrence, who argued that " in all the changes which are produced in the bodies of animals by the action of external causes, the effect terminates in the individual " and that racial differences were due to the occasional production of an offspring with different characters from those of the parents, as a native or congenital variety. These varieties were then propagated.[13]

Yet although Prichard and Lawrence had put forward these essentially evolutionary views they were by no means universally accepted among anthropologists. Crawfurd, who at the time was President of the Ethnological Society in London, wrote in 1863 that there is an outward and a structural similarity between men and monkeys but that is all; why Nature has bestowed upon them this similarity is a mystery beyond our understanding.[14] One argument advanced against those who held that mankind was derived from a single source and had spread gradually over the earth was that migration on this scale would have been impossible for a primitive people lacking language and any technical aids such as boats and domesticated animals.[15] Even if man had been on earth for many thousands of years, it was unreasonable to suppose that human beings and other living things had evolved from some original monads, as Darwin presumed, for this process would require millions of years, a period of time much too long to be accepted.[16]

All these theories were attempts to explain the obvious fact of contemporary human diversity, both physical and cultural. There was clearly a great difference in cultural attainment as well as in physique between peoples of Europe living in an industrial society and aborigines of Australia living by hunting and collecting their food. In between were a vast variety of peoples with varying patterns of subsistence, of government and law, of technology and religion. There were three ways of accounting for these differences. Some writers argued that there had always been different varieties of men, and just as they differed in physical appearance so they differed in cultural equipment and, perhaps, in cultural potentiality. The idea of multiple sources for the human stock, or multiple acts of divine creation, was known as polygenesis. Other writers asserted that man was created, or emerged from a pre-human phase, in a primitive and savage condition and that some branches of mankind had been more successful than others in evolving a higher state of civilization. Yet others supported the view that man began in perfection, or at least with some substantial cultural qualities such as language, fire and the rule of law, but that certain groups of peoples had degenerated from their original state and were now savages.[17] On the whole, the first and the last viewpoints accepted the status quo. If savages had been created savage, it was argued, their endowment was fundamentally different and they could never hope to become civilized. Similarly, degeneracy was usually thought of as an irreversible process, so that those who had fallen from the heights of civilization could never hope to rise again, not even

[13] Sir William Lawrence, *Lectures on Comparative Anatomy, Physiology, Zoology, and the Natural History of Man* (London, 1819), cited in Penniman, *op. cit.*, p. 82.

[14] J. Crawfurd, " On Sir Charles Lyell's ' Antiquity of Man ' and on Professor Huxley's ' Evidence as to Man's Place in Nature,' " *Transactions of the Ethnological Society of London*, III (1865), p. 70.

[15] E.g., J. Crawfurd, " On the Classification of the Races of Man," *Transactions of the Ethnological Society of London*, I (1861), p. 382.

[16] J. Crawfurd, " On the Theory of the Origin of Species by Natural Selection in the Struggle for Life," *Transactions of the Ethnological Society of London*, VII (1869), p. 28.

[17] Sir John Lubbock, " On the Origin of Civilisation and the Primitive Condition of Man," *Transactions of the Ethnological Society of London*, VI (1868), p. 28.

with the help and guidance of the civilized races.[18] On the other hand those who took the second view, that all had begun as savages and some had improved faster than others, stressed the unity of mankind. In their view what the leaders of mankind had already achieved could be achieved again by their laggard brethren, particularly if they were helped and encouraged by those who had already reached the top.

Arguments about monogenesis and polygenesis were not mere speculation about the distant and unknowable. Two important contemporary issues were deeply involved. Firstly, there was the validity and accuracy of the account of the creation contained in the book of Genesis. Secondly, there was the political, and to a lesser extent the missionary, question of the way in which the Great Powers should treat the native peoples of Africa and elsewhere over whom they were increasingly exercising political control. Many writers committed themselves, one way or the other, on the second and more immediate issue. On the first, whatever may have been their own convictions on the matter, most scholars took trouble to stress that they were not attacking the authenticity of the Scriptures when they proposed schemes of human evolution that appeared at least to go beyond the Genesis story, if not to contradict it. Thus Prichard wrote, " I have maintained the opinion, that all mankind constitute but one race, or proceed from a single family, but I am far from wishing to interest any religious predilections in favour of my conclusions. On the contrary, I am ready to admit, and shall be glad to believe, if it can be made to appear, that the truth of the Scriptures is not involved in the decision of this question."[19]

The admission that the earth was hundreds of thousands of years old, or that all men were not descended from Adam and Eve, did not automatically entail the rejection of a divine creation or of divine intervention. God might still be the creator, even if the creation did not happen precisely as told in Genesis. For example, Wallace maintained that some external spiritual agency had intervened in evolution three times, when life began, at the beginning of consciousness, and when man acquired a soul.[20] Penniman notes that Charles Kingsley, Anglican cleric and Oxford professor, found Darwin's monogenetic evolutionism quite compatible with his belief in Christianity. He wrote to Darwin, after reading *The Origin of Species*, " I have gradually learnt to see that it is just as noble a conception of Deity, to believe that He created primal forms capable of self development into all forms needful *pro tempore* and *pro loco*, as to believe that He required a fresh act of intervention to supply the *lacunas* which He Himself had made. I question whether the former be not the loftier thought."[21]

Even the classificatory procedures that Darwin employed were shared with men following very different professional interests. Colonel Lane-Fox provides a good example, as noted by Penniman. This soldier became interested in the development of the service rifle, and began to collect weapons from different stages in that development. Many different modifications had been made in the design of weapons, but most led away along sterile lines, and only a few contributed to real progress. Sometimes one invention remained ineffective until others had been adopted. In 1858 he published a paper with the title " On the improvement

[18] Cf. M. T. Hodgen, *The Doctrine of Survivals* (London, 1935), Chap. I.

[19] J. C. Prichard, *Researches into the Physical History of Man* (London, 1813), cited in T. K. Penniman, *A Hundred Years of Anthropology*, 2nd ed. (London, 1952), p. 78.

[20] A. R. Wallace, *Darwinism* (London, 1889), pp. 473–478.

[21] C. R. Darwin, *Life and Letters*, II (London, 1888), p. 288. Cf. Penniman, *op. cit.*, pp. 104–105.

of the rifle as a weapon for general use," showing the cumulative effect of many small variations.[22] His work was carried on quite independently of Darwin, but his methods were remarkably similar.

V

All these views were being canvassed at the time Darwin was writing, and even those who rejected his views on the evolutionary status of man employed arguments analogous to those he himself used. As we might expect, contemporary political considerations influenced the ways in which arguments were presented in a particular theory. The interweaving of interests is well demonstrated in an article written in 1867 by the Reverend Frederic Farrar, M.A., F.R.S., who argued in favour of polygenesis. He nevertheless quotes Darwin with approval for what he has to say about the great difference between savage and civilized man. Farrar argued that most savages are irreclaimable, and have always been so; there has been no degeneracy. The evidence for this is firstly "the practical verdict of all who have been thrown most closely into contact with them," and secondly "so far from being influenced by civilization they disappear from before the face of it as surely and as perceptibly as the snow retreats before the advancing line of sunbeams." Further evidence is given by attempts to reclaim individual savages, for these have always been unsuccessful. For example, Benilong, the Australian aborigine, after living some time in London, resumed with full choice the savage life. Farrar says: ". . . the real wild pagan savage not only has a *horror* for civilization, but deliberately *despises* it." The practical consequence of this state of affairs are made plain at the end of his article. He writes:

"We believe that the *lowest* of them are the *eldest* brothers of our race, and that they or savages like them have existed for 30,000 years on the surface of the earth. But they are vanishing fast, and signs are not wanting to show that even the Brown and Yellow races so far above them may in turn give way. To the Aryan, i.e., to the youngest and latest race which has appeared in human history, apparently belong the destinies of the future. The races whose institutions and inventions are despotism, fetishism and cannibalism—the races who rest content in administrative formalism, placid sensuality and unprogressive decrepitude can hardly hope to contend permanently in the great struggle for existence with that noblest division of the human species whose intelligent energy and indomitable perseverance have won for it, from Peru to China, from Spitzbergen to the Falkland Isles, so wide an empire and so unapproachable a rank."

Farrar concludes:

"The endowments of men are unequal; but *for that very reason we must raise a strong barrier of Religion and Right against the encroachments of the stronger upon their less privileged brethren.*"[23]

The doctrine of degeneracy was applied not only to distant savages who appeared reluctant to give up their old customs and religion; it could also be seen at work nearer home. In the '60s many writers were concerned about the Irish who had moved to Britain

[22] A. H. Lane-Fox, "On the Improvement of the Rifle as a Weapon for General Use," *Journal of the United Services Institution*, II (1858). Cf. Penniman, *op. cit.*, p. 91.

[23] F. W. Farrar, "Aptitudes of Races," *Transactions of the Ethnological Society of London*, V (1867), pp. 119–121, 125–126.

after the famine and who were employed as unskilled labourers in the cities. In 1866 we read :

" It is marvellous how close is the physical resemblance between those lowest classes of the Irish population and the natives of Australia, as depicted in the voyage of the *Astrolabe*. In the hordes of wretched Irish whom the famine a few years ago drove to seek subsistence in the sea-ports and manufacturing towns of Great Britain, every gradation was perceptible, from the *really* noble type of countenance and figure seen in some of them, to that utterly debased aspect which can only be looked at with disgust . . . As to the nomadic vagabond tribes which infest our streets and are found in every civilized community there may be noticed among them a certain degree of regression to the pyramidal type. By that acute observer Mr. Henry Mayhew in his *London labour and London poor* it has been well remarked ' that among them, according as they partake more or less of this pure vagabond nature doing nothing whatever for their living, but moving from place to place, preying on the earnings of the more industrious portions of the community, so will the attributes of the nomadic races be found more or less marked in them, and they are all more or less distinguished by their *high cheek bones and protruding jaws* ; thus showing that kind of mixture of the *pyramidal* with the *prognathous* type which is to be seen among the most degraded of the Malayo-Polynesian races.' There is unfortunately scarcely a civilized nation on the bosom of which there does not exist a degraded caste—an outcast population as reckless and prone to the indulgence of their worst passions as these degraded Malayo-Polynesian races and who are only restrained from breaking loose by external coercion."[24]

It is worth noting that without exception all writers, whether polygenetists, degenerationists or evolutionists, place themselves at the top of the scale of development. Just as *Homo sapiens* was at the peak of the animal kingdom, so the civilization of Western Europe in the latter half of the nineteenth century was the peak of cultural attainment. The supreme self-confidence of Western man in the values of his own way of life as against all others was not seriously shaken until the end of the first world war. Only then did it begin to be fashionable to talk about the importance of maintaining indigenous values, and of not exporting to the wilds of Africa and Oceania the ills and conflicts that had so damaged the Western world.

If polygenesis was correct and races had been distinct from the earliest times, there was little likelihood that they could all attain to the same heights of culture and civilization and, though this was sometimes left unstated, political power. The argument first became a matter of public debate in the seventeenth century, when the Spaniards conquered the western portion of South America. On that occasion, the missionaries, Jesuits and others, argued that the indigenous inhabitants, as well as their Spanish conquerors, had souls that could and should be saved and that it was wrong to treat them as merely domestic animals. The controversy raised its head in a slightly different form, or rather was reinterpreted in terms of Protestant rather than Catholic theology, with the movement for the emancipation of slaves at the beginning of the nineteenth century. The ending of slavery has not brought an end to doctrines of racial inequality. In 1853 De Gobineau published his book on the *Inequality of human races*, in which he argued that the majority of races were incapable of becoming

[24] R. Dunn, " Civilisation and Cerebral Development : Some Observations on the Influence of Civilisation upon the Development of the Brain in the Different Races of Man," *Transactions of the Ethnological Society of London*, IV (1866), p. 32.

civilized, however favourable might be the climate in which they lived or the external contacts they enjoyed. Four years later, in America, Nott and Gliddon argued that negroes and white men had descended from different original stocks and that the negro was inherently inferior to the white man.[25]

The ideas of De Gobineau were taken up thirty years later by Ammon and others in Germany. Ammon measured the skulls of recruits in Baden, and from the higher percentage of long skulls from the towns, as against the country, he inferred that long-headed people migrated more than round-heads, survived better in the city, and socially were more successful there than the round-heads. He went on to argue that human beings were unequally endowed morally and mentally, and that an ideal society would be one where there was social stratification and no inter-class marriage. The upper strata were long-headed Aryans, the lower were round-heads. Similar views were advocated in France by Lapouge, who in the '90s argued that the best racial stock in Europe was the Nordic long-headed Protestant, next best was the Alpine round-headed Catholic who is brown and quiet, likes to sit on his own land and obey the government and hates progress, while worst was the Mediterranean, short, dark and medium-headed. Houston Stewart Chamberlain, whose writings were brought back into prominence by the Nazis, wrote about the same time praising the virtues of the Teutonic race.[26]

Theories of this type are still with us. However, they have gradually passed from the realm of scientific inquiry to that of political propaganda. Nowadays the main interest of anthropologists in theories of racial inequality is not to test their validity but to understand how people come to believe in them.

VI

Although Darwin's ideas may have been used before him, he differs from many of his predecessors in that his hypotheses are based on many years of controlled observation of the world of nature, and on much experimental work, mainly on domestic animals. The physical anthropologists and archæologists of the post-Darwin century have likewise, in the main, accepted the need for careful controls on their use of evidence, and have advanced their views with more caution and more supporting evidence than did their forerunners of the eighteenth and early nineteenth centuries. However, the study of primitive man as a social being rather than as a zoological entity took a different turn. The bones of Neanderthal man can still be seen and measured, but we can never hope to know whether he was Conservative, Labour of Communist, monarchist or republican, patrilineal or matrilineal. We can infer only a few things about his cultural life, and the rest is speculation ; Neanderthal thoughts are gone for ever. Anthropologists have reacted in three ways to this situation. Some have continued to speculate extensively about the social life of prehistoric man ; others have made the best they can of the very limited reliable evidence that we possess ; and yet others have turned their back on the past completely and have confined their attention to the present, where alone the right kind of evidence can be obtained.

Darwin's influence must naturally be looked for mainly among those who have followed the first or second of these choices. Those who take the third are usually so fully occupied

[25] J. C. Nott and C. R. Gliddon, *Indigenous Races of the Earth* (Philadelphia, 1857).

[26] Cf. T. K. Penniman, *A Hundred Years of Anthropology*, 2nd ed. (London, 1952), pp. 125–126.

with their own theoretical interests that they pay only lip-service to the notion of cultural or social evolution. However, it has been argued with some plausibility that the present tendency for anthropologists, particularly in Britain, to ignore rather than to accept or reject the notion of evolution is due to the uncritical way in which anthropological writers of the late nineteenth century applied evolutionary principles. In the '60s, '70s and '80s, anthropologists "overlearned," as Murdock[27] says, the principle of evolution and produced schemes of social development that methodologically were scarcely any advance on the speculations that preceded them. The only difference was that the schemes were usually set out in greater detail and were supported with a wider range of ethnographic evidence. In the eighteenth century and earlier the characters postulated for primitive man were usually based on very few contemporary tribes. Locke used the Creek and Cherokee peoples of North America, Pope the Huron and Iroquois, and Rousseau the Caribs of Brazil.[28] In the nineteenth century there were more tribes to choose among and the progress of man from savage to civilized could be described in greater detail. But the method remained the same. Selected primitive contemporaries were taken to represent mankind in general as he was at various stages of development, and reasons were suggested how the transition was made from one stage to the next. Sometimes reasons were given why so many different forms of social life were co-existent, but this was never a topic treated in detail. Most of the theorists were content to note that, due to unfavourable climatic or other environmental conditions, certain peoples had progressed along the common trail of human social evolution at a slower pace than the rest, and that in this way we of the vanguard were able to see in them how our own distant forebears lived.

Of the many writers of the nineteenth century who discussed social, rather than physical, evolution, the most influential at the time was Herbert Spencer. Although others had preceded him with evolutionary schemes, he was regarded as the first exponent of evolutionary doctrine in the modern sense. Darwin referred to him as "the great expounder of the principle of Evolution."[29] His writings gained much popular support, particularly in the United States,[30] and his arguments were supported by a voluminous amount of ethnographic illustration. His influence on the main stream of social theory has been considerable, but nevertheless his lasting effect on anthropological thinking has been slight. The reason for this lies perhaps in the division already mentioned that developed at the end of the nineteenth century between evolutionary and other writers on the one hand, who continued to write about the development of man from the earliest times until now, and on the other those who rejected this grand approach and contented themselves with studying human societies as they could be seen in operation at the present time. Evolutionary theorizing became the monopoly of uncritical enthusiasts for whom Spencer's laborious methods seemed a waste of time.

Early in his life he became friendly with Hodgkin, one of the founders of the Ethnological Society, and he was associated with the Society itself in its early days. It seems clear that

[27] G. P. Murdock, "Sociology and Anthropology," in J. Gillin, ed., *For a Science of Social Man* (New York, 1954), p. 15.

[28] J. L. Myres, "The Influence of Anthropology on the Course of Political Science," *University of California Publications in History*, IV (1916), pp. 1–81.

[29] C. R. Darwin, *The Expression of the Emotions in Man and Animals* (London, 1872), p. 10.

[30] R. Hofstadter, *Social Darwinism in American Thought*, Rev. ed. (Boston, 1955), Chap. II.

Spencer developed his theories independently of Darwin, and he followed Lamarck rather than Darwin. Indeed, it has been said that after Darwin's theory had been published, Spencer was a little vexed at not having thought of it himself.[31]

Spencer was a social evolutionist in that he held that societies have evolved in a systematic manner from lower to higher, from incoherent homogeneity to coherent heterogeneity, and that it is through the survival of the fittest that this evolution takes place. He believed, following Lamarck, that modifications due to environmental causes are passed on to the next generation, and this process applies equally to physical and mental characteristics. The modifications are uniform (i.e., unilineal), gradual, and progressive. Instincts are inherited ways of expressing emotion. The state exists to serve the good of its citizens, but should not interfere with the selective process by which the fittest win the struggle. Certain mental qualities are selected because they have greater survival value. In the earlier stages, parental and family love are important for survival, but later altruism grows and extends its range. In the earlier stages, societies are characterized by compulsory co-operation, but as the transition is made from what Spencer calls militant to industrial types of society, so voluntary co-operation begins to replace compulsion.

Spencer's evolutionary theory was only one among many which were advanced during this period. The year 1861 saw the publication of Bachofen's *Das Mutterrecht* and Maine's *Ancient Law*. These, like Spencer, put forward schemes of what we now term unilineal social evolution. Although Spencer, Bachofen and Maine differed widely from each other, and from those who were to follow them with rival schemes, both in the range of ethnographic material on which they drew and on the conclusions they reached, their methods are similar. Their evolutionary schemes differed from one another in the order in which various phases of social development appeared in the temporal sequence, and consequently in the particular contemporary peoples who were utilized to illustrate the different phases. They also differed in the mechanisms, if any, that were postulated to advance any group of men from one stage to the next. Some writers link social and physical evolution, others ignore changes in human physique. Although they are evolutionists, these writers owe little to Darwin. Indeed, Darwin, in his *Origin*, presents a far from unilineal account of physical evolution.[32]

Other unilineal writers were McLennan, who published in 1865, and Lubbock, whose *The Origin of Civilization* appeared in 1870. There are differences in the care with which these and other contemporary writers selected their materials, and in particular some of Maine's observations have a value that has outlived the particular evolutionary scheme with which they were first associated. There is little need to dwell on the details of the different schemes, to discuss whether father-right preceded mother-right, or whether the social arrangements whereby one woman has several husbands belong to a higher or a lower stage than the system whereby one man has several wives. As accounts of universal history all the schemes are clearly false, even though some peoples may have followed one or more of the sequences in their social development for some of the time. It will suffice to outline only one scheme which will serve as a model for the others. I choose Morgan's thesis because in many ways it was the most elaborate of them all, it still has supporters, and it was in some

[31] A. A. Goldenweiser, "Leading Contributions of Anthropology to Social Theory," in H. E. Barnes *et al.*, eds., *Contemporary Social Theory* (New York, 1940), p. 439, f.n. 6.

[32] Cf. C. R. Darwin, *The Origin of Species*, Chaps. VI and VII.

small part based on a relatively rigorous examination of empirical data. While studying the Iroquois, a North American Indian tribe, during the '40s, Morgan had noticed that their system of kinship terminology differed markedly from our own. For example, the term by which an Iroquois addressed his own father was not, as with us, restricted to that man alone, but was used to address and refer to several other relatives as well. Morgan sent questionnaires all over the world asking for information on kinship terminology and proceeded to analyse the 139 systems that were reported.[33] The system of analysis that he used was scarcely satisfactory and muddled anthropological thinking for many decades to come, but it was at least an attempt along the right lines. In 1877, in *Ancient Society*, Morgan linked his fairly reliable information about contemporary kinship terminologies to a speculative scheme of human evolution. In the beginning there was no marriage. Then came limited promiscuity with all those in the same generation allowed to marry one another. This was followed by a system in which society is divided into four sections, with definite marriage rules so that a man normally marries his mother's brother's daughter or someone classified with her. This was followed by what Morgan called the syndyasman family, when the marriage union lasts only during the pleasure of the parties concerned, and this in turn gave way to the patriarchal family, with each man married to several wives. As the idea of private property developed, so marriage became monogamous.

Morgan's ideas were popularized by Frederick Engels in *The Origin of Family, Private Property and the State* (1884) and thus passed into the Marxist canon.

VII

Similarities in custom between two widely separated parts of the world could, in nineteenth century terms, be explained in two ways. Either the similarity was evidence for the psychic unity of mankind, and for the fact that all societies were progressing towards a common goal along a single track, or else the similarity was evidence of some former connexion between the two peoples concerned. Tylor, the founding ancestor of anthropology as an academic discipline in Britain, combined both the evolutionary and the diffusionist approaches to human development. He was principally concerned with customs rather than material objects of culture, although some of his most convincing arguments for diffusion relate to material objects. Nowadays, professional social anthropologists and sociologists are largely concerned with the observation and analysis of societies or of limited social fields. Tylor was not. As Goldman has recently remarked, he was a student of custom, not of society.[34] Although in a general sense Tylor was, like his contemporaries, searching for origins, he did not as they did put forward any comprehensive scheme of unilinear development, and where he did postulate a sequence of wide validity, he was sometimes able to support his thesis with evidence of a much more rigorous kind than was used by other writers.[35] One of his best remembered papers, published in 1889, is an examination of the presence or absence in some 350 societies of nine customs relating to marriage and descent. Among other things he tried to show that

[33] Leslie A. White, "How Morgan Came to Write *Systems of Consanguinity and Affinity*," *Papers of the Michigan Academy of Science, Arts, and Letters*, XLII (1957), pp. 257–268.

[34] I. Goldman, "Evolution and Anthropology," *Victorian Studies*, III (1959), p. 57. Cf. the other articles in this Darwin anniversary issue.

[35] R. R. Marrett, *Tylor* (London, 1936), Chap. X.

the practices of naming the parent from the child, ceremonial avoidance of the wife's relatives, and marriage residence with the relatives of the bride, are all due to a common cause, namely, matrilineal descent. He showed that the association of these various customs in different societies is not random, and that the odds are six to one in favour of a common cause. Tylor added : " Many of the firmest beliefs of mankind rest, I fear, on a less solid basis."[36] From further evidence of this kind, Tylor argued that residence with the wife's relatives was the rule during the earliest stage of human development. Then came an arrangement whereby after a period of residence with her relatives the couple normally go to live with the husband's relatives. Finally, at the latest stage of development, the couple on marriage go directly to live with the husband's relatives. Tylor arrived at this temporal sequence by considering the way in which some customs are retained beyond their useful life. For example, the custom that a husband must avoid his wife's mother, which is important when the couple live in her vicinity, is retained even after the rule has changed to residence with the husband's people, when the avoidance serves no useful purpose. The custom of ceremonial avoidance thus became a survival, as it was termed, in much the same way as physical organs, once functional, remain after they have ceased to be of use. By studying those usages in society which seem to be merely fanciful and quaint, it is possible, so Tylor argued, to infer the state of affairs in time past when these customs served a useful purpose. This notion that " useless " customs were survivals from the past was widely employed by evolutionists, degenerationists and diffusionists, though seldom with the methodological rigour that distinguishes Tylor.[37]

Tylor admitted that degeneration could occur as well as progress, but maintained that nevertheless " the history of the lower races, as of the higher, is not the history of a course of degeneration, or even of unequal oscillations to and fro, but of a movement which, in spite of frequent stops and relapses, has on the whole been forward ; that there has been from age to age a growth of Man's power over Nature, which no degrading influences have been able permanently to check."[38]

As is well known, Tylor's most positive contribution to theories of social evoluton concerns religion. He argued that religion began, as it were, with the cult of the dead. In dreams, people and animals appear, and this induces in the dreamer the notion of the soul, the ethereal counterpart of the body. Some of the individuals we see in dreams are dead. Therefore, we accept the notion of the survival of the soul after death, and hence the need for a cult to care for and placate the dead. From a belief in souls grows a belief in spirits, and the entry of spirits into people can explain why some people grow ill or die or are possessed. Spirits are thought to dwell in rivers and trees and animals, and hence we have totemism and animal worship, and eventually nature gods. From this stage of polytheism one god may become pre-eminent and we reach monotheism ; or the gods may be ranked in a hierarchy ; or the essence of divinity may spread through the whole universe.

---

[36] E. B. Tylor, " On a Method of Investigating the Development of Institutions," *Journal of the Anthropological Institute*, XVIII (1889), p. 249.

[37] Cf. M. T. Hodgen, *The Doctrine of Survivals* (London, 1935).

[38] E. B. Tylor, *Researches into the Early History of Mankind and the Development of Civilization*, 2nd ed (London, 1870), cited in T. K. Penniman, *A Hundred Years of Anthropology*, 2nd ed. (London, 1952), p. 183. In a later edition Tylor is less dogmatic. He writes : " So far as may be judged from the scanty and defective evidence which has as yet been brought forward, I venture to think the most reasonable opinion to be that the course of development of the lower civilization has been on the whole in a forward direction though interfered with occasionally and locally by the results of degrading and destroying influences 3rd ed. (London, 1878), p. 376.

VIII

In the mid-nineteenth century it was still possible, as with Tylor, for both evolutionary and diffusionist interpretations to be made within the same analytical scheme. By the first and second decades of the twentieth century these two approaches had become the slogans of two sharply opposed schools of ethnology, the evolutionists and the diffusionists. In this antithesis, the difference between Darwin's physical evolution and the social evolution of his contemporaries is made apparent. In physical evolution, the tree of life is always ramifying, even though some twigs die out and a few twigs look somewhat the same as others on other parts of the tree. It is difficult to attribute the same ever-ramifying qualities to social forms. In the unilineal schemes there was no ramification but only a simple sequence. In the alternative approach of the extreme diffusionists, it was assumed that mixing went on continuously. The development of cultures was likened not to a tree with its branches, but to a net woven with many different-coloured threads which preserved their identity as they passed through a series of knots. Neither approach utilized the Darwinian analogue of a tree. Diffusionism reached its most extreme form in the views of Elliot Smith, who attributed to the ancient Egyptians almost every invention or custom that distinguishes man from the animals. The Egyptians, the children of the Sun, then carried their distinctive culture all over the globe. This theory is nonsense, but so too in varying degrees are the unilineal schemes of the nineteenth century. It is quite definitely established that some societies have developed in one way and others in other ways ; and that some customs evolve in a society while others are borrowed in whole or in part from their neighbours. Only in the most general terms can we speak of a uniform pattern of cultural and social development for the whole of mankind. Some modern writers attempt to do this. For example, Gordon Childe argues that hunting and gathering food precedes agriculture and the domestication of animals, and that these in turn precede the growth of large political units, cities, a complex division of labour, the art of writing, and the study of mathematics. But he stresses the diversity of cultural forms within these wide categories.[39]

Recently proposed evolutionary sequences of restricted length and application have been described as theories of multilinear evolution.[40] Instead of trying to make a model of the development of all societies, various writers have tried to generalize about the way in which certain kinds of society, or certain social institutions, change under the influence of stated external or internal stimuli. These generalizations, if true, are in effect laws of social or cultural change, and as such are one kind of correlation between one feature of social life and another. So far none of the correlations which have stood up to scrutiny have been very ambitious ; they have applied only to closely circumscribed social conditions. However, it is clear that many features of social life, for example, specific types of kinship system, political grouping, legal machinery, religious ideas, do occur time and time again in different parts of the world and in different social contexts. Social anthropology at the present time is largely concerned with analysing more closely the characteristics of these frequently recurring social phenomena. As we endeavour to examine more minutely the social life we see around us, we inevitably find ourselves dealing almost exclusively with processes of very restricted

[39] V. G. Childe, *Social Evolution* (London, 1951).

[40] J. H. Steward, " Evolution and Process," in A. L. Kroeber, ed., *Anthropology Today* (Chicago, 1953), p. 315. Also *Theory of Culture Change* (Urbana, Ill., 1955).

time span. Whereas the earlier anthropologists had no qualms about determining the whole course of human history from the emergence of man on earth through the millennia to the present day, we of to-day more and more confine ourselves to the time span for which we have good historical records, rarely more than a hundred years ; or for which people can recollect from their own experience, giving a span of about five generations ; or even merely for the time during which a particular investigator is able to make his own observations, a year or two at most. Thus we tend to lose sight of the long-term processes of human development and of the particular problems of ethnology, the elucidation of the past history of specific societies. We may regret this, for it is obvious that our own society as well as every other society has a very long trail of development stretching back through the centuries, and it would be satisfying if we could fit it into a neat pattern. But the intellectual need that we may feel for some kind of pattern does not imply that a pattern really exists ; and even if it does, we are still a very long way from finding out what it is. We cannot even determine reliably how particular societies have developed, whether in patterned or unpatterned fashion. Man the social animal still appears as an infinitely more wayward and idiosyncratic creature than man the physical being whose development Darwin so successfully outlined. Darwin's contribution to anthropology and sociology lies in another direction. What distinguishes Darwin from so many of his evolutionist forerunners is that he was able to say, at least in part, not only what had happened in human development, but also how it had happened. What progress anthropologists have managed to make in the last twenty or thirty years has been largely due to their insistence not only on describing what social changes take place, or what social institutions regularly appear with others, but also to ferreting out the social mechanisms whereby the changes are brought about or the institutions linked to one another. Until we are in a position to establish convincingly how the long-term processes of social evolution have been brought about, perhaps it is best to leave them alone and to concentrate on more modest enquiries.

J. A. Barnes.

Australia : Material Culture. **McCarthy.**

Records of the Rock Engravings of the Sydney District : Nos. 72-102. *By F. D. McCarthy, Dip.Anthrop. (Syd.), Curator of Anthropology, Australian Museum, Sydney and Mr. F. Hansen.*

Group 72. Long Trig. Station (Fig. 1).

Situated on a sloping ledge of rock, with a rough surface, at and above the southern end of the last saddle in a spur, running north-east from the main ridge at a point one-quarter of a mile south of Long Trig. Station, which is on the southern side of Cowan Creek and to the west of Smith's Creek. There are very beautiful and extensive panoramic views to the northward from this site. The map reference is 188.446.

The figures, all on separate rocks, consist of (1) a male culture-hero or spirit being 16 ft. long, with fingers on one hand, armlets, a girdle, broad penis and short bandy legs which have no feet. No. 2 is 25 yds. to the west, and is a goose or swan-like bird figure, 18 ft. long, with a long neck and bill-like mouth, a bladed club of phacoid type held in its one limb, and it has a foot-like posterior end which is engraved down the steep side of the rock. No. 3 is 12 yds. further westward along the rock and it combines the physical characters of nos. 1 and 2. It is just over 19 ft. long, with a bill-like mouth, pair of eyes on a long

sinuous neck, a long oval body, human legs with four toes on the feet, and a penis. It is holding a bladed club in its fore-limb on which there are fingers. 25 Yards. further to the west, on an adjoining rock, is a triple-pronged spear-like object which might be a ceremonial wand or fishing spear. It has a well marked shaft to which a cord-like end is attached, and is just over 17 ft. long.

The outlines consist of conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{4}$ in. deep, being well preserved and clearly defined.

Both nos. 1 and 3 are spirit beings, and the latter one of these beings is portrayed in the composite half-human and half-totem form.

This remarkable ceremonial group may illustrate in the Sydney-Hawkesbury the important religious doctrine of south-eastern Australian tribes, of the dual origin of both man and animals, in particular of totemites and their totem, from a composite being such as

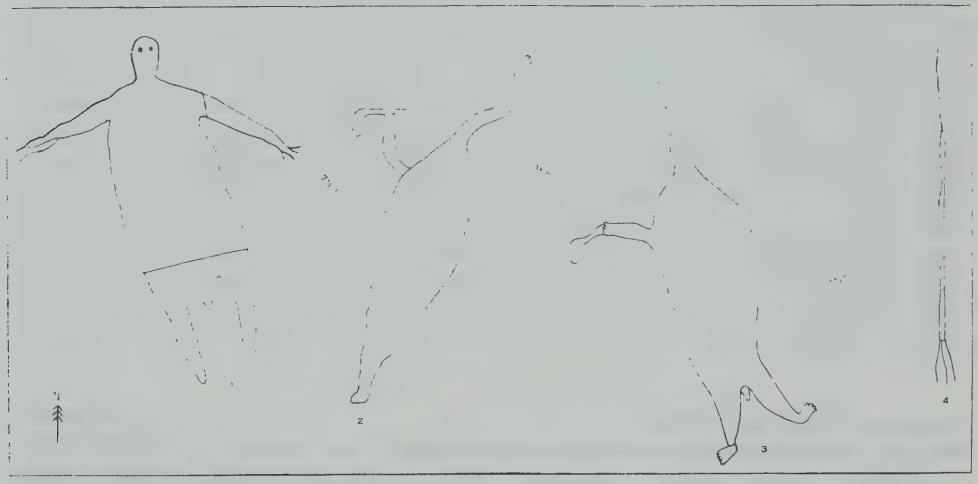


Fig. 1.

No. 3 in this group. Furthermore, these spirit-beings are apparently engaged in some mythological incident (of which, unfortunately, we have no record) in which two of them are holding clubs. The site is apparently a spirit totem centre for the bird of the duck, goose or swan clan.

Several galleries exist near Roach Trig. Station (about a mile to the south) and also on both sides of Smith's Creek, in which the figures of culture-heroes and spirit-heroes are depicted, and this area appears to have been a most important one ritually.

Group 73. Warata Bay (Fig. 2E).

Situated on a small spur on the northern side of Waratah Bay opposite Windybank's boatshed in Cowan Creek. The engravings occur on two rocks in a slight saddle about 100 feet above salt water level, at a map reference of 178.449.

No. 1 is a broad-ended boomerang, 90 ft. west of which are Nos. 2–5, consisting of four pointed oval shields (two with and two without the crossed-line designs painted on the actual shields, between 3 and 4 ft. 3 in. long, beside and at right angles to one of which is the small figure of a man (No. 6).

The outlines are of weathered conjoined punctures $\frac{1}{8}$ in. wide and $\frac{1}{16}$ in. deep.

Several other groups are known, notably Campbell's Pl. V, No. 13 (Manly) in which weapons only are shown, and his Pl. XXI, No. 13, XII, 15, in which a spirit-being or culture hero is shown with weapons (particularly shields).

Group 74. Barbara Trig. Station, Mt. Colah (Fig. 2A).

Situated on an extensive rock ledge east of Mt. Colah township, the outcrop being visible from the railway line just north of the Station. The ledge is nearly a quarter of a mile long, with a fairly rough surface, and is about a quarter of a mile north-north-east of Barbara Trig. Station, the map reference being 125.395. The engravings are at the eastern end of the ledge, and are most easily approached by a track which runs from a turnstile at the end of Cowan St. There is a view northwards across the valley from the site.

The six figures in the group comprise the following: (1) Indeterminate, perhaps the lines of an incomplete figure; (2) an emu, poorly drawn, as though depicting a dead bird almost 5 ft. long; (3) human footprint or mundoe; (4) an unusual figure of a man, life-size, with long curved hair or headdress, with three fingers on one hand (like an emu's foot), and two large fingers on the other hand, his upturned feet facing the same way; (5–6) a pair of leaping kangaroos or wallabies about life size, both well proportioned and posed, particularly the leading one.

The artist has recorded the killing of an emu and the sighting of a pair of kangaroos or wallabies, perhaps at a favourite hunting place, or at his own totemic centre.

The outlines are of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep. Nos. 4–6 have been completely re-chipped with a steel pick by vandals.

Group 75. Barbara Trig. Station, Mt. Colah (Fig. 2B).

Situated 350 years north-north-east of group 74, at the same level of the same ridge, on two flat and insignificant rocks on either side of a small rock-shelter. The map reference is 128.396.

There is a leaping wallaby on each rock. No. 1 is well proportioned, and No. 2 attenuated, both being about life-size. No. 2 is unique because of the line of pendants attached to its stomach representing possibly the string of fatty tissues from the intestines of these animals so relished by the Aborigines.

No. 1 is an old weathered figure on a segmented rock. No. 2 has deep conjoined punctures in its outline, smoothed by water, the lower part of its outline being wider than the upper.

Group 76. Barbara Trig. Station, Mt. Colah (Fig. 2C–D).

Situated on a dark and light coloured sandstone rock, covered with small stones, about 200 yards north of group 74 in the vicinity of Barbara Trig. Station, the map reference being 129.397.

Series I (Fig. 2C). The figures are widely distributed and consist of (1) a large but incomplete animal like a native cat; (2–3) two life-size kangaroos or wallabies in a similar conventional leaping posture; (4) a boomerang; (5) a phacoid outline with a curved line above it; (6) a very small kangaroo or wallaby, 1 ft. 9 in. long; (7) a bird 1 ft. high (it is like a bag or gnarl container unless looked at the proper way); (8) a headless kangaroo or wallaby; (9) a lean and long kangaroo leaping at full speed, lacking its tail; (10) a curious kangaroo or wallaby lacking both tail and hind limb (it may be a koala, but its head is

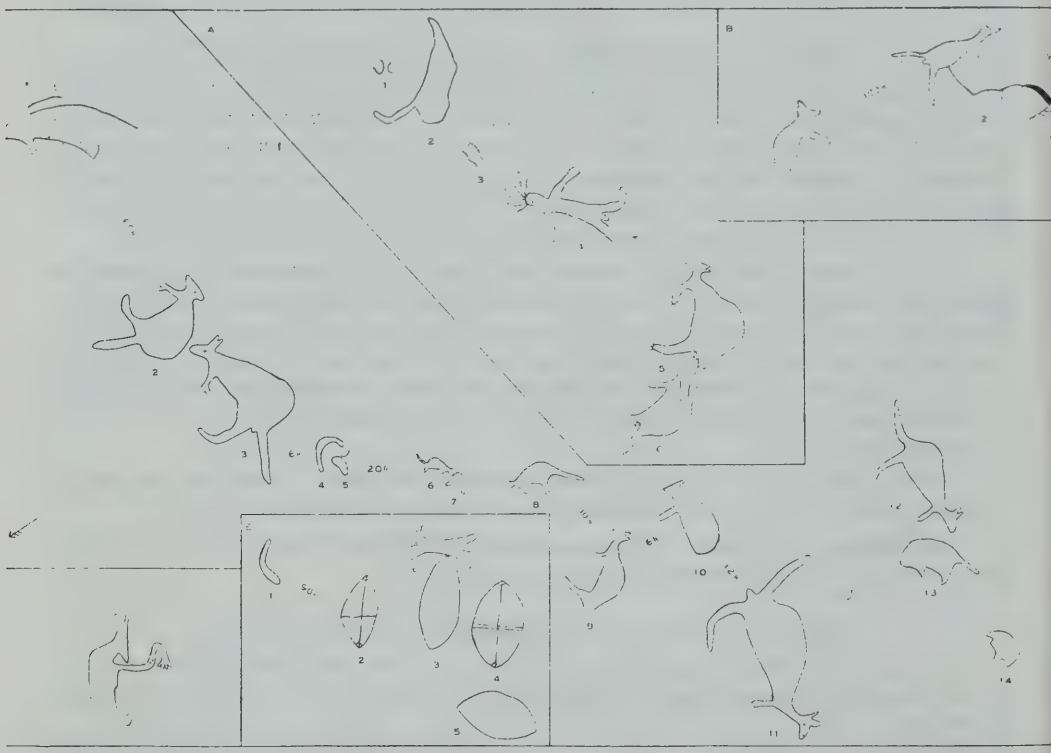


Fig. 2.

pointed and flat-faced like a kangaroo); (11) a magnificent leaping male kangaroo or wallaby over 8 ft. long, with unusually well proportioned anterior portion including the neck and head; (12) a stiffly posed leaping kangaroo or wallaby 6 ft. 6 in. long; (13) a wombat or native cat; (14) an echidna.

This is an old weathered group, with faint outlines of conjoined punctures, $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep, but those of Fig. 11 are $\frac{1}{2}$ in. wide and $\frac{1}{4}$ in. deep.

This area was probably a traditional and fruitful hunting ground for kangaroos and wallabies, the other mammals being common all through this type of country.

Series II (Fig. 2D). 40 yards north of Series I, on a rock sloping at 60 degrees, is the strange and unique upright figure of a kangaroo (lacking tail which has weathered away) with a stumpy hind leg, a very long fore-limb bearing a pair of eyes and four fingers, and a large straight-faced head. It is in a position of supplication, as though requesting something from another being. The site is surrounded by thick bush, but the railway line is visible from it. The outline of this figure consists of round conjoined punctures ½ in. wide and ¼ in. deep.

Group 77. Jerusalem Bay, Cowan (Fig. 3).

This gallery is engraved on three adjoining rock surfaces which form part of the bed of a creek on the western side of " The Lookout ", a high rocky knoll between Edward and Cliff Trig. Stations, on the northern side of Jerusalem Bay. The site is about 100 ft. below the top of the ridge connecting Edward Trig. to The Lookout, and the rocks constituting it are conspicuous from surrounding high points. The map reference is 229.499. It is a delightful place, probably a popular resting place for a cool drink of water and a favourite hunting ground.

The series of 26 figures is described as an upper and lower series, separated by a creek. From the north-eastern corner of the gallery are the following figures: (1) the head of a spirit being, showing three eyes, four strands of hair, and portion of the shoulders (there is a similar head and bust on a body in Campbell, pl. XXII, No. 1, at Cowan); (2) portion of an indeterminate figure; (3) oval 2 ft. long; (4) small human figure 2 ft. high; (5) snake or eel (from the side) with a broad body; (6) small emu, and (7) portion of a large emu; (8) a magnificent leaping male kangaroo, just over 10 feet long; there are several lines on his body and one near his tail which might be portions of old figures; (9) a fore-shortened figure of a whale just over 16 feet long, with a broad oval body, no tail, and lines on its body which may represent old and faded out figures. The reason for the triple ventral outline is unknown; (10) portion of an indeterminate object engraved across the whale; (11) elongate figure, probably a weapon; (12) eel or bark canoe; (13) indeterminate and incomplete; (14) echidna bearing 7 spots; (15) eel with an unusual head; (16) circle; (17) a small man 3 ft. high, wearing an anklet, and with a curious indeterminate projection on one side of his head (it is probably part of a rayed headdress as the other end is shown, or of long hair); two large boomerangs are hanging down from his hands; (18) a taller man almost 5 ft. high, with fingers on both hands, and the shoulder line carried across his neck; (19) indeterminate; (20) a goanna, imperfect; (21) indeterminate; (22) a flying goose, with very narrow wings, about life-size; (23) a man just over 4 ft. high; (24) three spheroidal clubs (or stingrays), the largest one being 4 ft. 1 in. long.

There are six large natural potholes in the creek joined by grooved water channels made by the Aborigines.

Nos. 6–9, 15–16 have deep outlines, and the remainder weathered ones, all of conjoined punctures. No. 1, the bust of the spirit being, has rubbed outlines ½ in. wide and ⅜ in. deep.

The presence of a spirit-being with smooth rubbed grooves indicates that the site is a ritual one, probably in use for a long period. A wide representation of the game of the vicinity—kangaroos, snake, echidna, emus, goose, whale, goanna, eel, etc.—is shown, all of which are probably totems. No. (8), the kangaroo, is a particularly well posed one; (9) the

whale, an unusually broad and short one; (5) the snake, unusually broad; (15) the eel, has a noticeably pointed end, with a short projection on its nose; (17) unique in the way the man is holding the two boomerangs; and (22) the goose, is a rare type of representation of a bird.

Campbell recorded Nos. 2–3, 8–12 in plate XXIV, but considered the remainder too weathered for this purpose.

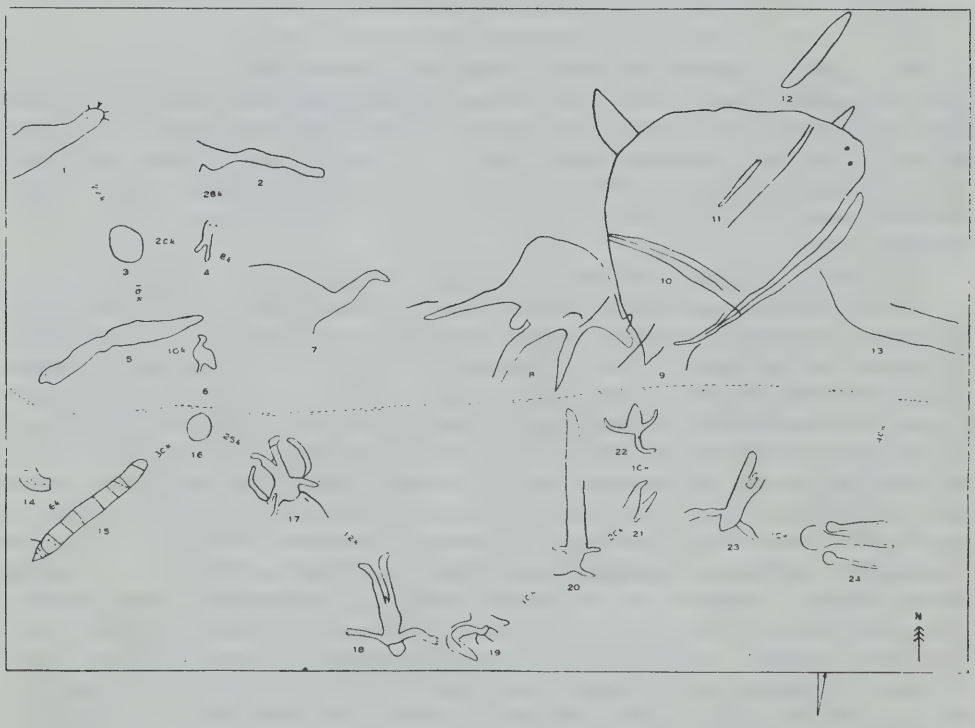


Fig. 3.

GROUP 78. JERUSALEM BAY (Fig. 4A).

Situated half a mile further down the creek than group 77, on the same level as a waterfall halfway between the two groups. The site is a quarter of a mile from the waterfall, and on the southern bank of the creek, the map reference being 226.503. The figures run from east to west and Nos. 12–16 (Fig. 4B) follow on the end of Nos. 1–11. The following are represented: (1) a line of indeterminate significance; (2–3) two remarkable and unique figures in profile of koala bears. The long claws on the fore-limb of No. 1, the nature and position of the hind limbs, and the posture are characteristic of this mammal as it is shown among these engravings, but the limbs are exceptionally long; one has one eye, and the other two. They are 6 ft. 3 in. and 8 ft. 6 in. long; (4–5) a man and woman of conventional types, both lacking hands and feet, the man wearing a girdle and armlet, and a raved

head-band: he is life-size and the woman, whose head, arms and breasts form an unusual pattern, is much smaller; (6) another life-size figure of a man wearing a girdle; (7) curved line; (8) dingo in the usual stiff posture of this animal; (9) indeterminate, probably portions of two figures; (10) a life-size man with a small woman engraved in a position which suggests sexual intercourse (a subject recorded elsewhere in two sites in Muogamarra Sanctuary and Kuring-gai Chase respectively); (11) a fish; (12–13) two goannas, one shown as though in the act of moving its hind legs; (14) eel; (15) curved line; (16) portion of an emu.

The outlines all consist of round conjoined punctures up to $\frac{3}{8}$ in. wide and $\frac{1}{4}$ in. deep.

The two Koala bears make this an important group from the point of view of subjects, as they are rare among the engravings as a whole. The " pairs " theme is carried on in the two sets of man and woman, and two goannas, and it is an unusual feature of this gallery. The portrayal of sexual intercourse suggests a mythological incident. The site is apparently a totem centre of the Koala bear clan, if not of some of the other animals depicted.

Group 79–88. Jerusalem Bay (Fig. 4, C–L).

The following series I-X, of from one to three figures, are all situated on the northern side of Jerusalem Bay, and on the western side of Cowan Creek, in the vicinity of the Cole, Edward and Cliff Trig. Stations. There are extensive panoramic views from many of these high sites.

Group 79. (Fig. 4C). Engraved on a rock ledge over a furlong in length, and up to 100 ft. wide, situated about 200 ft. below a saddle in the ridge of the north of " The Escarpment ", a flat-topped hill near a large dome-shaped outcrop between Cole and Edward Trig. Stations, the map reference being 223.510.

Two of the men are 7 ft. 7 in. and 9 ft. high, one of them wears a girdle, but they are otherwise normal representations. The third one, however, is a remarkable action figure, with a slim body, one bent and one curved leg, and one curved and one twisted arm. The twisted arm probably represents the holding of a boomerang. His form borders on the " stick " style, and he is 3 ft. 9 in. high. The figures are well preserved with outlines of conjoined punctures $\frac{3}{4}$ in. wide and $\frac{1}{8}$ in. deep.

Group 80. (Fig. 4D). Engraved on a rough rock ledge on the northern side of the ridge on the next knoll east of Edward Trig. Station, the map reference being 227.498. There are fine views of Porto Bay and Dangar Island from this site.

The only figure depicted is an outstanding human one, just over 5 ft. high, with toes and fingers of varying numbers shown on all limbs, a long penis, and a set of vertical stripes on his body. He is holding a barred boomerang (only the second one recorded) in his left hand. He is probably a spirit-being, one of a type commonly described as carrying a boomerang and other weapons in this way in Australian mythology (Elkin, *Oceania*, XX, 1949, 126), and are characteristically left-handed. The outlines are of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep on a blistered rock.

Group 81 (Fig. 4E). Engraved on the edge of a rock ledge on the southern lip of the second saddle east of Edward Trig. Station, the map reference being 228.497. A small

conventionalized echidna with a curved line above it, the latter being possibly portion of a boomerang thrown at it. The outlines of round conjoined punctures are very faint, $\frac{1}{4}$ in. wide and $\frac{1}{16}$ in. deep.

Group 82 (Fig. 4F). Engraved on the highest point of The Lookout, a large rocky hill between Edward and Cliff Trig. Stations, the map reference being 233.502. Campbell (1899, Pl. XXIV, No. 10) recorded a series of forty-four human footprints around the summit, but omitted the basket recorded here. It is 2 ft. 9 in. high and 2 ft. wide, and is obviously a woman's food collecting basket. Thus the site represents the track and basket of a spirit woman. The outline consists of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep. (Hanson suggests that this basket might have been done by whites, as the punctures are roughly made).

Group 83 (Fig. 4G). Engraved on a rough, stone-covered rock at the eastern end, and the northern side, of the broad saddle west of Cole Trig. Station, the map reference being 208.499. A man, about life-size, with a fat body, no feet or hands, one arm upraised and the other horizontal, and with his hair coiled. The outline is of weathered round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep.

Group 84 (Fig. 4H). Engraved on a ledge of rock on the lip of the spur about 15 chains north of Cole Trig. Station, the map reference being 212.503. This fish has weathered round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{16}$ in. deep.

Group 85 (Fig. 4I). A fish bearing spots, probably a leatherjacket, engraved on a smooth rock halfway between a dome-shaped outcrop and the escarpment east of Cole Trig. Station, the map reference being 219.505. It has an outline of round conjoined punctures of medium depth.

Group 86 (Fig. 4J). This unusual human figure is engraved on a rough rock on the northern edge of the saddle west of Cole Trig. Station, about 150 paces from the western end of the saddle, the map reference being 205.500. The figure is of a man, 1 ft. 9 in. high, without hands or feet, and unusually well defined head. Its partly weathered outline consists of both round and oval conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep. This figure is only a few feet east of the spirit-being or hero recorded by Campbell (Pl. XXIII, Fig. 2) and the two should be considered together. It is obviously of ritual significance.

Group 87 (Fig. 4K). A pair of boomerangs engraved a short distance to the south of Series IV, and near the centre of the saddle, the map reference being 208.499. The outlines are of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{16}$ in. deep.

Group 88 (Fig. 4L). Two fish engraved on a rock which is thirty paces south of Series VIII, the map reference being 204.499. The larger one has clearly defined outlines of conjoined punctures $\frac{1}{8}$ in. wide, but the other one is faint.

Group 89. Cowan (Fig. 4M).

Situated on a flat, high rock just outside the railway fence on the eastern side of the line about one quarter of a mile north of the Station, the map reference being 177.495. A broad snake 6 ft. long with a rounded head and an indeterminate line. The outlines are of very faint and weathered round conjoined punctures $\frac{1}{32}$ in. deep.

GROUP 90. COWAN (Fig. 4N).

Situated on a thin ledge of rock under the overhead power line about 300 paces south-east of bridge north of Cowan Station, the map reference being 179.498. It is on the eastern side of the Pacific Highway and railway line.

The five figures consist of an oval, an irregular oval enclosing four dots, two wallabies, and portion of another figure. One of the wallabies has an unusual shape in the hinder part of its body. The group represents the hunting of two wallabies. The outlines consist of rounded conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep, well preserved.

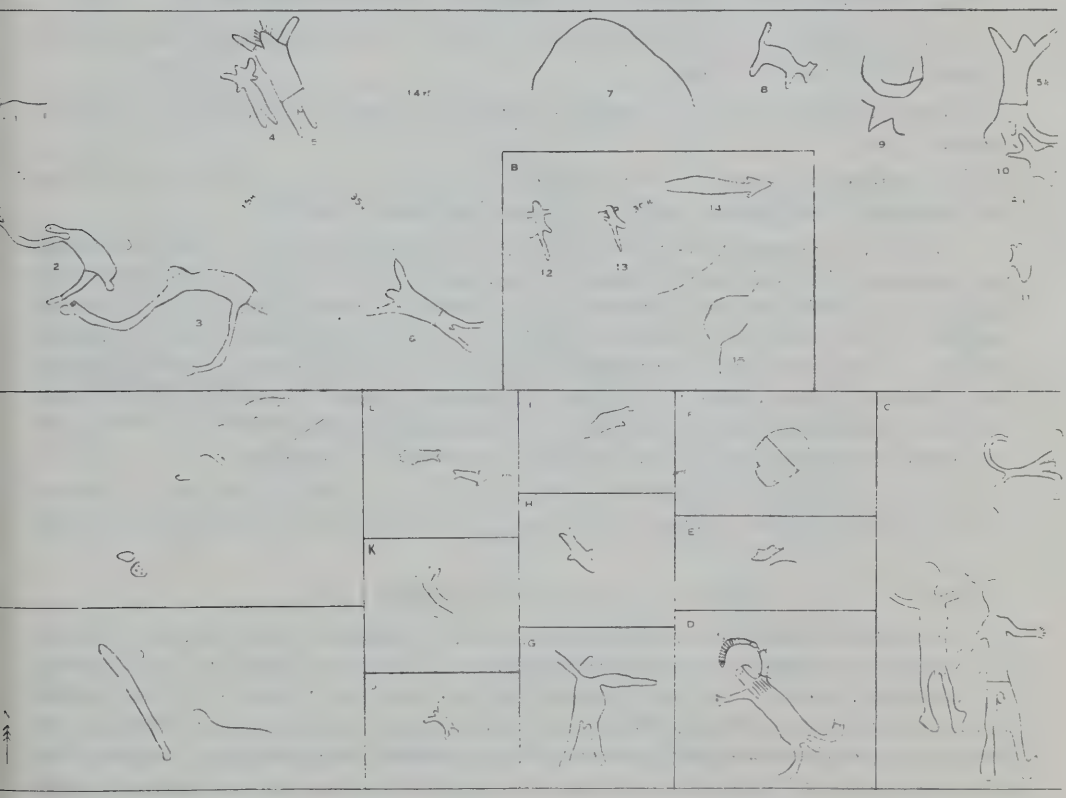


Fig. 4.

GROUP 91. WARATAH BAY AREA (Fig. 5A–C).

This fine group is situated on a spur separating the middle and northern bays of the three small and unnamed bays between Waratah and Apple Tree bays, on the western shore of Cowan Creek, the map reference being 164.437. The spur consists of a series of ledges and flat terraces, and the site is halfway up the ridge. The figures are engraved all around a long sausage-shaped rock, and all face to the north. In setting out the group the artist(s)

engraved the spirit being or culture-hero partly down the side of the rock, one man near the top, and the others in a slanting position.

Series I (Fig. 5A). Figures 1–10 are all human figures of various kinds and sizes. Nos. 1–7 form a uniform series, all wearing armlets and girdles, several bear a stripe on the leg, No. 6 has a body pattern (probably representing a painted one), No. 4 has four huge fingers on each hand, No. 2 has well defined feet. They are from 5 ft. 3 in. to 6 ft. 3 in. high (but No. 4 is 6 ft. 8 in. in all). Nos. 8–10 are bigger figures, being 6 ft. 6 in., 9 ft. 6 in. and 12 ft. 6 in. high, broad bodied, wearing rayed head-bands, girdles and armlets. No fingers or toes are shown on them. No. 9 has a foot, and also a body design (like No. 6). 13 ft. away is a life-sized wallaby in a beautifully portrayed leaping pose.

Series II (Fig. 5B). 40 ft. north-west of Series I is a half-egg shaped rock on which is engraved the figure of a man.

Series III (Fig. 5C). 16 ft. west of Series II are engraved a fish, goanna, and an imperfect oval.

The outlines all consist of round conjoined punctures, which are $\frac{1}{4}$ in. wide and $\frac{1}{4}$ in. deep in Series I, but shallow and very weathered in Series II and III.

The group of human figures in Series I depicts seven initiates, No. 1–7, who had reached the stage where they had received their girdles and armlets in the presence of the spirit beings Nos. 8–10 responsible for their initiation. It is possible, of course, that Nos. 8–9 represent guardians, adults who are portrayed as bigger and of more importance than the initiates, but No. 10 is undoubtedly a culture-hero. The totems include wallaby, goanna and fish. This is the only group known in the Sydney–Hawkesbury district in which initiation, if such the scene, is depicted. One cannot help commenting upon the pre-occupation of the people who made the engravings, with the hunting of wallabies and kangaroos.

The site consists of several smooth sandstone rocks, of unusual shapes, set in a spacious grassy flat, in a secluded position ideal for the performance of secret initiation ceremonies.

Group 92. Mt. Kuring-gai (Fig. 5D–E).

Situated one quarter of a mile south-south-east of Beaumont Trig. Station at the head of a valley on the eastern side of the railway line, and about one quarter of a mile north of Mt. Kuring-gai Station. The rock, which is 100 yards long and 8 yards wide, runs parallel to the railway line 80 yards east of it, and 10 yards below it, the map reference being 141.427. On the opposite side of the line, between the latter and the Pacific Highway, and one third of a mile south-south-west of this group, is a magnificent ritual group (McCarthy, 1958).

Series I (Fig. 5D). Two of the men are in the conventional upraised arms pose, with armlets and girdles, but the third one has the arms at his side. They are about life-size. The snake, 7 ft. 6 in. long, is about 150 yards away on another rock. All of these figures are old and worn.

Series II (Fig. 5E). This rock is 30 ft. higher up the slope to the north-northeast of Series I, about halfway between the railway line and the overhead power line, the map reference being 143.429.

No. 1 is a small man, with a long penis, no feet, holding in his left hand a boomerang. He has a very long left arm, and no right one, and illustrates again the left-handedness of spirit beings. No. 2 is a fish, and No. 3, 20 ft. away, a life-size emu in a conventionalized standing pose.

Nos. 1 and 3 have round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep, but those of the fish are oval. The outline of the emu are weathered to a greater degree than the others.

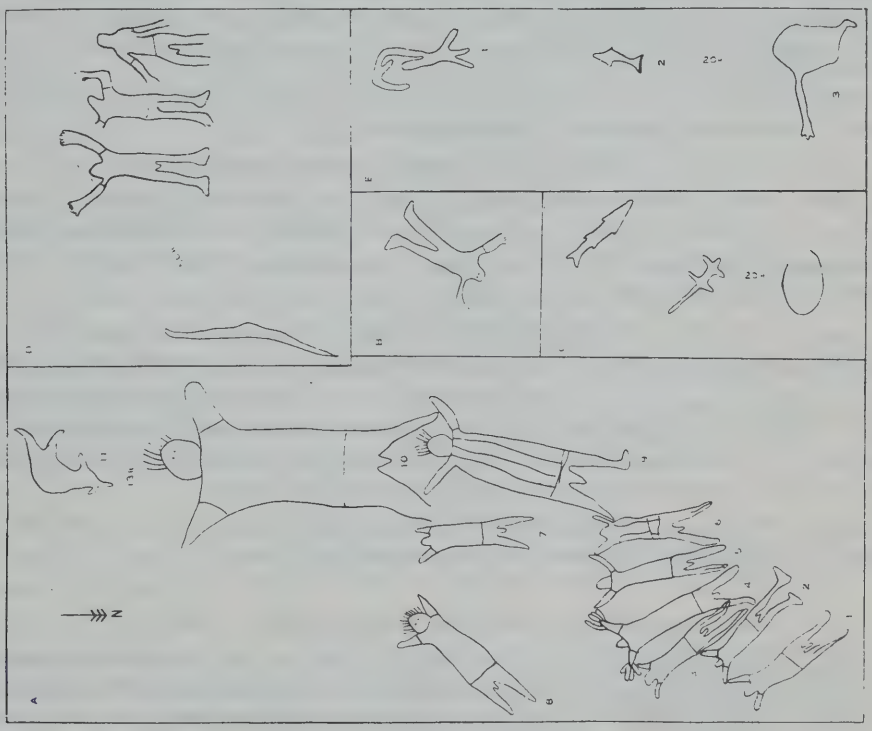


Fig. 5.

GROUP 93. ARTHUR TRIG. STATION (Fig. 6A–D, G, I).

Series I–VI are situated in the vicinity of the Trig. Station on the southern side of Smith's Creek.

Series I (Fig. 6B). Near the end of the ridge which runs north from the Trig. Station, and separates two small bays, the map reference being 198.439. It is about 300 yards from a group (in a clearing on the south-west side of the same ridge) recorded by Campbell (1899, Pl. XVI, Fig. 11, also a large culture-hero).

This figure is 7 ft. 9 in. high, but 10 ft. 6 in. including the shield. It faces to the west. The throwing weapon, a boomerang, is held in the left hand and the defensive one, the shield in the right hand. He is wearing a girdle and has toes on both feet, but has only one eye. His outline of round conjoined punctures is very weathered.

Series II (Fig. 6C). 40 yards east of Series I, on the north side of the ridge, on a large expanse of rock from which extensive views are to be seen, the map reference being 199.439. There are two shields and a boomerang together, and 240 feet away a goanna. In addition, Campbell (1899, Pl. XVI, Fig. 12) recorded two culture heroes and three fish on this rock. The outlines are weathered grooves $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep.

Series III (Fig. 6G). A spirit being 10 ft. high engraved on a rock 100 yards to the southwest and 50 ft. lower down the ridge than Series II, at a map reference of 198.438. He has no ornaments or weapons. His outline of oval conjoined punctures is $\frac{1}{2}$ in. wide and $\frac{1}{4}$ in. deep, and the rock is sloping at 30 degrees from the horizontal.

Series IV (Fig. 6A). A life-size echidna 20 yards south of Series III, near a clump of bushes. It has an outline of oval conjoined punctures.

Series V (Fig. 6D). This group is 350 yards south of Series IV, on a smooth rock at ground level, the map reference being 199.437. Nos. (1–4) shields with varying line patterns ; (5) an oval ; (6) an axe or club ; (7–8) two men of which No. 8 has a bird-like appearance but the penis is well defined on both of them. The outlines of round conjoined punctures are deep and clear, $\frac{1}{4}$ in. wide and $\frac{1}{4}$ in. deep.

Series VI (Fig. 6I). This unique figure is on the eastern side of the northern end of the first saddle north of Arthur Trig. Station, on a small rock 4 ft. wide at ground level, the map reference being 200.427. It is a turtle or tortoise just over 3 ft. long, displaying the carapace design. It has very long flippers at one end, and short ones at the other, and one of them is rounded. It has the appearance of a man wearing a turtle shell on his chest for ceremonial purposes. The weathered grooves are $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep.

Series I–VI belong to the very important mythology centred on the spirit-beings and culture heros depicted in the galleries of the Smith's Creek area.

Group 94. Taber Trig. Station (Fig. 6, J–K).

Series I (Fig. 6J). Part of an eel-like fish engraved on a small rock beside the south side of, and near a sharp bend in, the road, about half a mile east of the Trig. Station, the map reference being 217.441. It has faint round conjoined punctures.

Series II (Fig. 6K). About halfway down the road from the Trig. Station to Cottage Point, on the left hand side, a fine large fish 5 ft. long with well preserved outlines of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{4}$ in. deep.

Group 95. Waratah Trig. Station (Fig. 6L–M).

Series I (Fig. 6L). A fish engraved on a small rock in the scrub 400 yards from the Trig. Station at 230 degrees, the map reference being 230.447. Its outline of round conjoined punctures is $\frac{1}{2}$ in. wide and $\frac{1}{4}$ in. deep.

Series II (Fig. 6M). Engraved on a rock on the northern side of the long saddle south-east of the Trig. Station, the map reference being 240.444. A fish with a wide faint outline, additional to the shield and emu recorded by Campbell (1899, Pl. XX, Fig. 1).

Group 96. Berowra (Fig. 6H–I).

These four sites occur on a ridge east of Berowra and north of Waratah Bay.

Series I (Fig. 6I). Engraved on a reddish coloured rock on the northern side of a saddle, the map reference being 167.459. The rock runs east-west, and the carvings are distributed along this general line.

The fifteen figures are as follows: (1) small and poorly drawn emu; (2–3) three fish; (4–9) four men and two wallabies, obviously a hunting scene: fingers are shown on three of the eight hands; (4) has a nose, and all are in the conventional upraised arms pose. One of them is holding a bladed club of the Yachi type in his right hand, and (7) also has a weapon of some kind. An interesting contrast exists between the four heads, one of which has hair or a head-band, two are small and the other two big; (10) a fish almost 6 ft. long of the broad bream type; (11) indeterminate; (12) broad shield with line pattern; (13) incomplete circle; (14) broad shield with another figure engraved over it.

Series II (Fig. 6H). On an adjoining rock are five more fish, four of them shown swimming in a line over a waterfall.

The outlines vary in age and state of preservation. Those of the shields are the best preserved, being wider and deeper than the other grooves which are faint and weathered. The outlines of the fish in Series II consist of punctures only.

This group illustrates a party of men who have been out hunting and fishing, with some of the weapons they used.

Also on this rock are five stones placed in a carefully made heap, consisting of two flat slabs supported horizontally by three small stones, like a seat.

Group 97. Berowra (Fig. 6E–F).

East of Group 96 is a U-shaped hill on the same ridge and Series III is at the head of a creek which rises in the middle of this U, the map reference being 169.458.

Series I (Fig. 6F). Here is engraved, facing to the east, a spirit being 7 ft. 6 in. high but with weapons 11 ft. 9 in. Four fingers and toes are shown on the hands and feet, he is wearing several girdles, and his hair is shown. The weapons are held at the top of his outstretched and almost vertically upraised arms, the boomerang in his left hand and the shield in his right hand. There is a curved line beside him. A number of similar figures are known among the Sydney–Hawkesbury engravings, and he is apparently a culture-hero known to all of the tribes and local groups. His outlines are deeply engraved and well preserved.

Series II (Fig. 6E). Engraved on a large ledge of rock 350 yards due east of Series I. and visible from it, 80 ft. below the top of the spur, are an incomplete whale and portion of a mammal, both of which are very weathered and faint.

Group 98. Cowan (Fig. 7A).

Two circles, with well preserved outlines of round conjoined punctures ½ in. wide and ¼ in. deep, engraved on a sloping ledge of rock 60 paces west of Campbell's group (1899, Pl. XXVI, Fig. 2), and 10 ft. higher up the slope, at a map reference of 174.468.

GROUP 99. COWAN (Fig. 7B).

This site is 150 yards north-east of a group recorded by Campbell (1899, Pl. XXVI, Fig. 3), the map reference being 166.466. It is on a small segmented rock in the scrub at the start of a ridge leading from Yatala to Want Trig. Stations. A mother and young emu are shown, both well portrayed with a well marked foot on the leg of each bird. The big one is 8 ft. 6 in. long. The outlines are of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep, but the grooves are cracked and weathered.

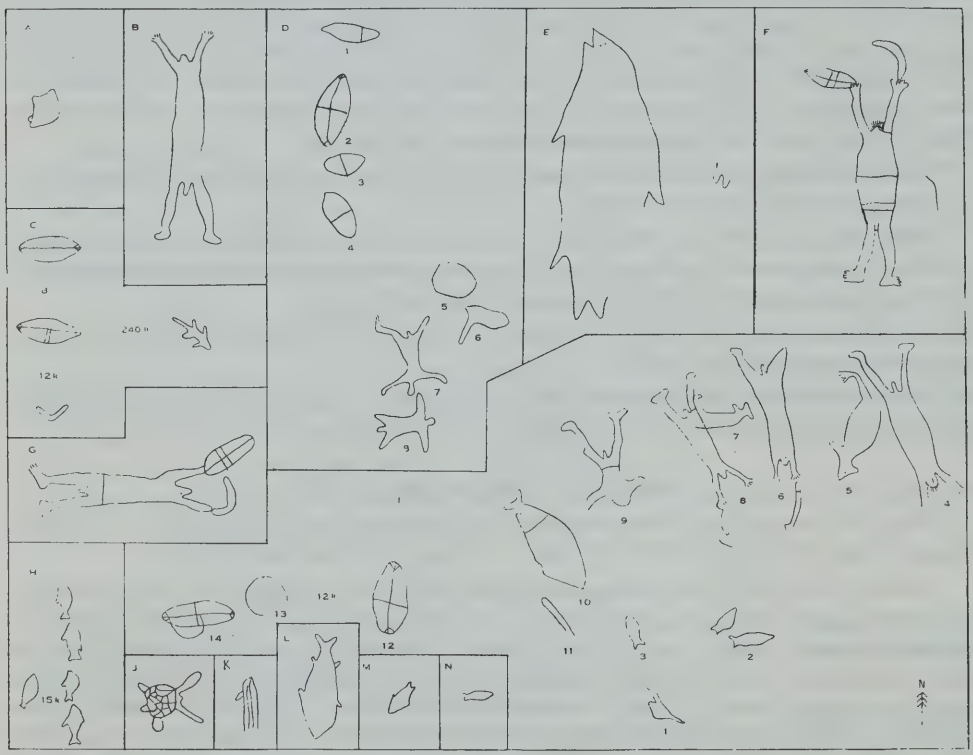


Fig. 6.

GROUP 100. WARATAH BAY (Fig. 7C).

Engraved on a small rock in the scrub 60 paces from the end of the spur that divides the two creeks that flow into the small bay north of Waratah Bay, the map reference being 178.467.

The series consists of a small man, with both legs bent backwards or in the opposite direction to that in which he is going, and with one long and one short arm. 8 ft. away are two broad shields. The well preserved outlines consist of round conjoined punctures $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep.

GROUP 101. COWAN (Fig. 7D).

Situated on an old segmented sloping rock ledge above a marshy patch of ground west of a saddle on the main ridge from Yatala to Want Trig. Stations. This saddle is the next one in an easterly direction from the point where the telephone wire to Cottage Point leaves the ridge to go down to the water. The map reference is 193.479.

The following figures are engraved here: (1) a small fish; (2) a small leaping and well executed wallaby; (3) a goanna 3 ft. 4 in. long with the claws well shown on its hind legs; (4) an unique life-size figure of a man, with no digits on the hands or feet, short arms, two horn-like projections from his head, and a large round mouth; (5) a jellyfish; (6) an elongate fish-like figure. Six axe-grinding grooves exist nearby.

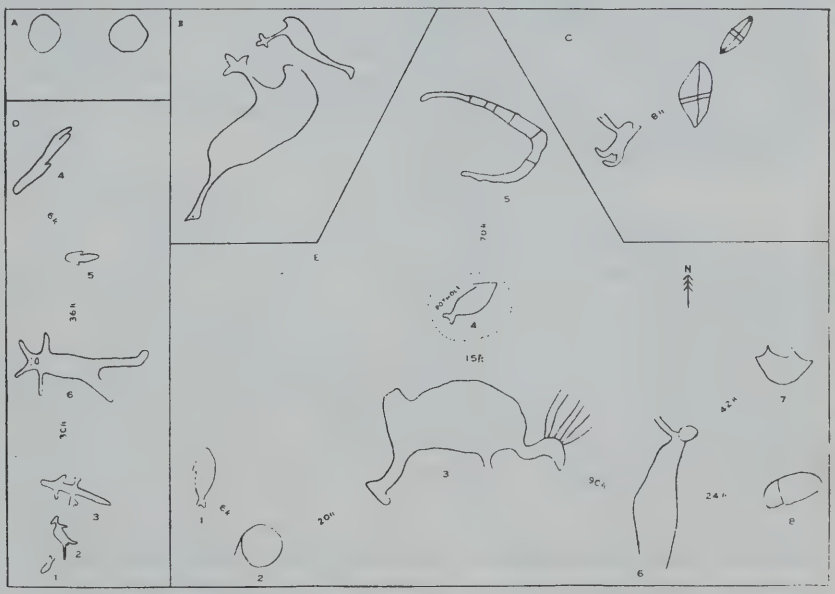


Fig. 7.

There are five distinct animal species in this group associated with the man who is obviously in a ritual make-up. He has the largest and most distinct mouth in a human figure yet found in the Sydney–Hawkesbury engravings.

GROUP 102. WANT TRIG. STATION (Fig. 7E).

Situated on a large, flat and segmented area of rock at ground level forming a saddle one mile east of Want Trig. Station, near the end of the ridge, with excellent views of the Cowan Creek area. The map reference is 212.478.

The eight figures in this interesting group are as follows: (1) a fish; (2) a circle; (3) a composite human-emu figure with a rayed headdress; (4) 15 ft. to the north a fish in a pothole filled with water by rains; (5) 70 ft. to the north a bent and barred snake about

10 feet long; (6) 90 ft. to the east of No. 3 is a human figure 7 ft. long in profile, with a long body, fat belly, round head and upstretched arm (this figure was covered with earth and moss); (7) 42 ft. to the east is an echidna; (8) a basket apparently belonging to No. 6, which is evidently a female.

There are 15 axe-grinding grooves on a smooth segmented rock on the south side of the saddle.

The outlines of the engravings are all in a similar weathered condition, $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep.

Scattered stones in the middle of the rock may once have been a heap.

Three animal species—fish, echidna and snake—probably all totems, are portrayed here in association with the spirit beings. The latter, with male and female human figures, echidna and basket, resemble the composition of the group on the Old Bobbin Head road (west of Jacomb Trig. Station) recorded by Campbell (1899, Pl. XXI, Fig. 4) but in the present site the male hero is a composite human-emu one of the Daramulan kind, and in Campbell's group the hero and the emu are shown as separate figures. The two galleries may have belonged to different local groups.

F. D. McCarthy,
and F. Hansen.

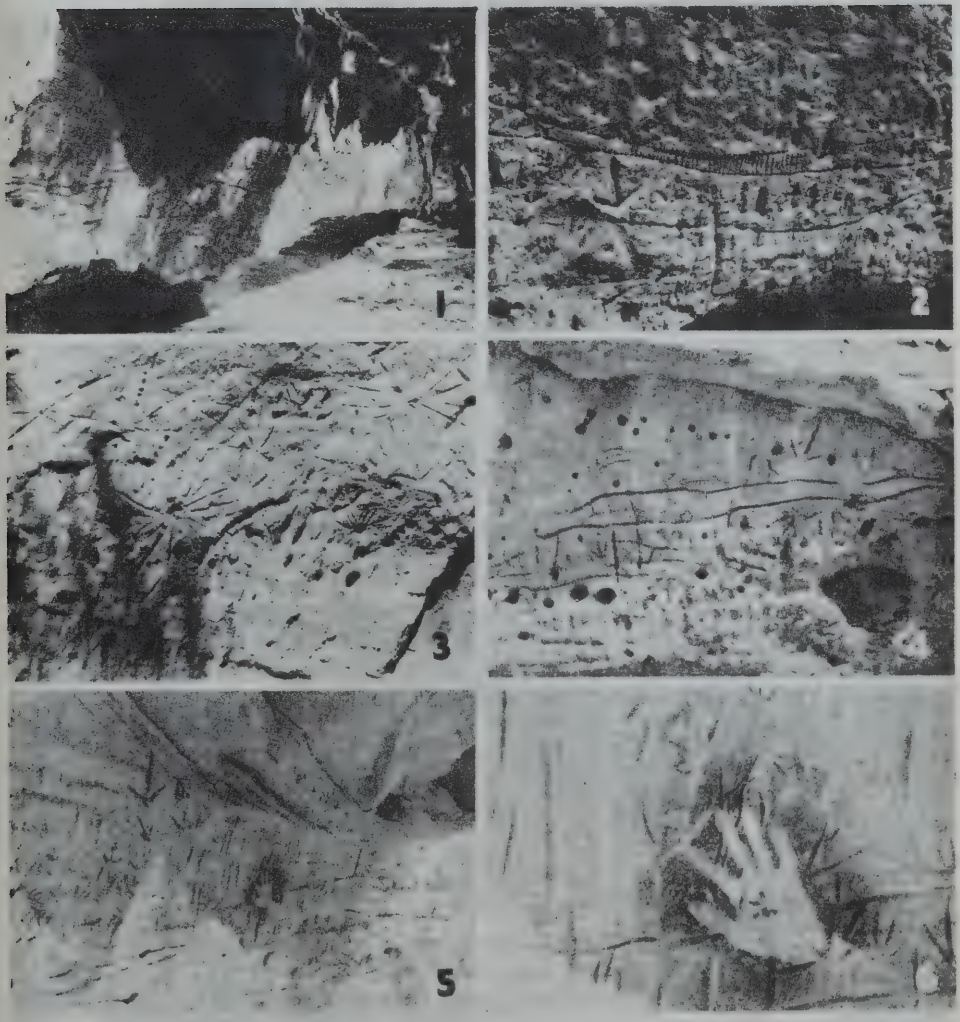
Australia: Material Culture. **McCarthy.**

Rock Art in Central Queensland. *By Frederick D. McCarthy, Dip.Anthr. (Syd.), Curator of Anthropology, Australian Museum, Sydney.*

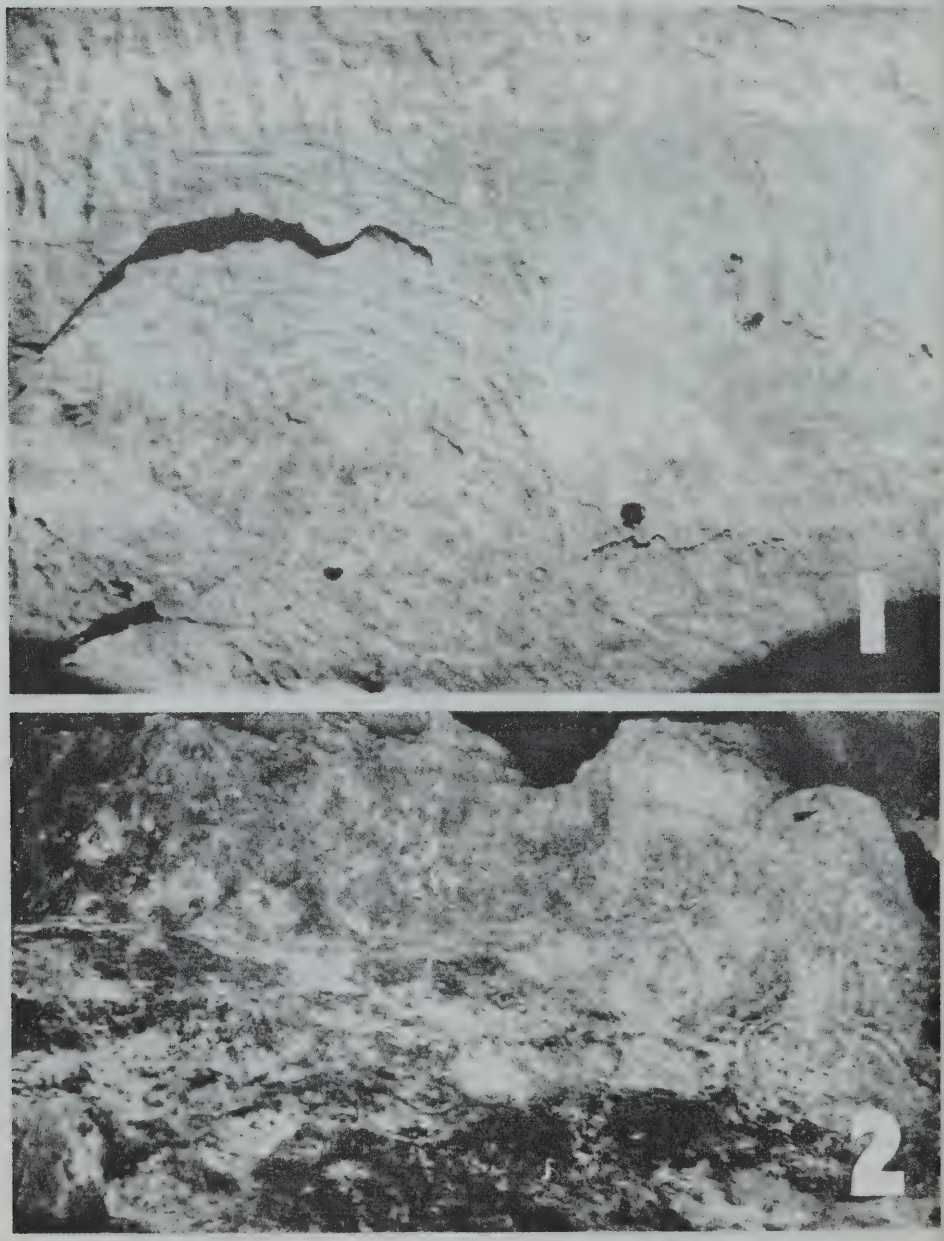
Rock engravings and paintings do not occur in marked concentrations in Queensland, and for this reason the rock art of this State is not as well known and publicized as that of northwestern Australia, Arnhem Land, New South Wales and the Flinders Range, where very large numbers of sites occur in comparatively limited areas. There are, however, many important sites of both kinds scattered throughout eastern and central Queensland. In Cape York rock engravings have not been reported although there are many outstanding sites of cave paintings on this peninsula. Both outline and pecked engravings, and a wide range of painting styles, are recorded in Queensland. In August, 1958, Mr. Gavin Vance (Church of England Grammar School, Brisbane) kindly sent me a series of photographs of the three additional sites of rock art in central Queensland described in this paper.

An unusually interesting assemblage of rock engraving techniques and styles occurs in the central and southeastern districts of Queensland, all of them on the vertical faces of rock-shelter walls. Goddard (1941) described several sites of this kind in the Carnarvon Ranges, where friezes up to 200 feet long exist in the gorges, and another site is recorded (McCarthy, 1958, pp. 24, 28) in the Alpha district, Drummond Ranges, 100 miles to the northwest of the Carnarvons. These carvings are also recorded in the Blackall Ranges, and at Nobby's Gully, Clarence river, on the north coast of New South Wales (Etheridge, 1904). Among them are to be seen (McCarthy, 1958, p. 28) an extraordinary series of deep pits and holes, deep elongate grooves inside an oval like a cup and ring motif, clutches of emu eggs, a variety of linear and oval designs, abraded grooves, bird, kangaroo and other tracks. Human and animal figures are rare. These engravings form a rock art area quite

ROCK ART IN CENTRAL QUEENSLAND



ROCK ART IN CENTRAL QUEENSLAND



unrelated to the Sydney–Hawkesbury engravings, but one which has affinities with the engravings of western New South Wales and the Flinders Range of South Australia, and more particularly with sites on the lower Murray river (Hale and Tindale, 1925), where at Wongulla, for example, a pillar of rock in a shelter is covered closely with these holes, bird tracks, large crosses, and abraded grooves.

Gracevale :

A previously unrecorded site of the above type of rock art. It is situated on Gracevale Station, about thirty miles east of Aramac, on the main stock route. The engravings are made in the front face of the overhang forming a long and comparatively low rock shelter in one of the laterite escarpments on the property. The site is known locally as the " Art Gallery ".

The photographs display a wide range of motifs, which include the following :

Very long horizontal grooves, several of which run in roughly parallel pairs and may represent snakes. On one pair may be seen (Pl. V, Fig. 2) a long series of parallel bars which cross both outline grooves and probably constitute a separate design.

A complex line design (Pl. W, Fig. 1) which may represent an animal. Its outlines are in the conjoined puncture technique.

Tracks of a large bird, probably the emu, are numerous, all pointing downwards towards the ground ; up to five may be grouped in a horizontal or vertical series, and there appears to be a marked concentration of them in the area around the stencilled hand (Pl. V, Fig. 5). The tracks of the kangaroo are shown in two styles ; one is the conventional pair of tick-like markings (Pl. V, Fig. 3, top, which might represent a wallaby), the other is a deeply cut figure in which the impression of part of the heel-shank, and of the heel pad and toe, of the hind foot, are shown (Pl. V, Fig. 2). It is not unlike a stone knife or spearhead. There is also another pad-like track with five or six toes (Pl. V, Fig. 3, middle, Fig. 2, top left) which may be that of a kangaroo's forepaw or a goanna. A foot-like carving is shown in Pl. V, Fig. 3 (top).

Linear patterns are simple, and include a set of three slightly curved parallel lines, turret-shaped figures, criss-cross motif (Pl. V, Fig. 2, left), and a few others shown here and there in the photographs. The most notable motif in this group is a hole from which from six to eighteen lines radiate, the figures of which appear to be concentrated at one end of the gallery (Pl. V, Figs. 3 and 5).

The abraded grooves (Pl. V, Fig. 6) do not appear to be arranged in patterns or groups apart from the horizontal series of about fifty in Pl. V, Fig. 2.

The pits or holes are mostly haphazard in occurrence among the other engravings, but one set of seven (Pl. V, Fig. 3) is arranged in a straight line, and in a number of instances one of these holes forms the centre of the radiate motifs. I have previously pointed out that the lines of round solid white or red circles (1958, p. 17) among the cave paintings of eastern New South Wales are akin to these holes among the engravings.

There does not appear to be any kind of composition of the motifs or subjects in this gallery. The individual figures are engraved over one another in a dense frieze in which the emu tracks and the radiate designs form two separate concentrations.

The techniques are of unusual interest. Fig. 1 in Pl. W has conjoined puncture outlines, but, judging from the photographs, all of the other figures appear to be cut or abraded into the rock. It is not known how the large holes were made but they were probably done with a hafted stone adze.

Pl. V, Figs. 5–6, illustrate a human hand stencilled in red over the rock engravings, which is a most interesting example of superimposition and one that may prove to be of some importance. Studies made by the author in rock shelters in eastern New South Wales indicate that the stencils belong to the earliest period of cave art in this region but their relationship to the rock engravings of the central coast district is not yet known. At Mootwingee, in far western New South Wales, the rock engravings (among which the radiate motif and abraded grooves occur) are associated with engravings of emu and kangaroo tracks and other motifs, and with stencils, in many rock shelters. At Gracevale, therefore, the engravings are either older than or contemporaneous with the stencils.

A bird track in red is also shown in Pl. V, Fig. 5.

Erne :

On the back wall of a rock-shelter on this Station, forty miles south-east of Yalleroi in central Queensland, is a large series of white hand stencils, a human male figure whose eyes, mouth and nose are shown, and a snake about twenty feet long. The two latter figures are in orange-red with a white outline, and white and red lines radiate from the snake's head. Movement is suggested by the undulating outline of the snake. There appears to be a relationship between the snake and the man. Mr. Vance was told by a Mr. D. Thompson, whose people originally came from Longreach in central Queensland, that the snake was called Marangga by the natives. There appear to be a few other figures on this wall but they are not identifiable in the photographs.

Ranger's Valley :

A rock shelter containing about two dozen red hand stencils occurs on this Station, which is twenty eight miles east of Aramac, on the main stock route in central Queensland.

References

Etheridge, R. Jr., 1904. Ethnological Notes made at Copmanhurst, New South Wales. *Rec. Aust. Mus.*, 5, 271–75.
Goddard, R. H., 1941. Aboriginal Rock Sculpture and Stencilling in the Carnarvon Ranges, Queensland. *Oceanaia*, ii, 72–80.
Hale, H. M., and Tindale, N. B., 1929. Further Notes on the Aboriginal Rock Carvings of South Australia. *S. Aust. Nat.*, 19, 30–34.
McCarthy, F. D., 1958. Australian Aboriginal Rock Art. *Aust. Mus. Handbook.*

F. D. McCarthy.

Australia : Material Culture. **Mountford.**

Unusual Rock Markings in Australia. *By C. P. Mountford, Honorary Associate in Ethnology, South Australian Museum.*

A number of records in Australian scientific journals describe groups of straight line marks engraved either on permanent rock faces or detached pieces of stone. These are of three forms: (*a*) deep cuts engraved in permanent rock faces, those at Winninninie (Mountford, 1929, Pl. 1, Fig. 2), being typical; (*b*) shallow scratchings on small, flat, usually oval stones (Cooper, 1954, pp. 97–103); and (*c*) deep cuts on rounded pebbles. These form the subject of this paper.

(*a*) *Cuts on permanent rock faces.*

This form of marking, which, in a previous paper, I called "straight-line marks" (Mountford, 1929, p. 338), consist of a series of grooves, triangular in section, which have been cut into a smooth rock surface.[1] These straight-line marks have been recorded in South Australia by several investigators: Basedow (1914, p. 201) at Mallett; Tindale and Mountford (1926, pp. 156–9), at Morowie; Sheard (1927, pp. 137–40), on the lower Murray, and Mountford (1929, pp. 337–66), at Winninninie and other places.

Davidson (1936, Fig. 23), illustrates a group at Delemere, northern Australia, while I have seen them both at Ewaninga and Iromba, central Australia, and in a photograph of a painted cave at Blackall, central Queensland. Mr. H. L. Sheard also found a group of straight-line marks on a loose fragment of rock (Pl. X, Fig. D), which had split off the Wabricoola group of rock engravings in South Australia (Mountford, 1929, p. 360).

(*b*) *Scratchings in flat pebbles.*

Mr. H. M. Cooper has collected a large number of small flat stones, on the eastern side of the northern Flinders Ranges (1954, pp. 97–103), which have a series of parallel lines scratched into the surfaces. These artifacts appear to be confined almost entirely to the eastern side of the northern Flinders Ranges, although Mountford (1938, pp. 144–6) recorded a similarly scratched pebble from Peglars Creek, about three hundred miles south, and another specimen which, according to the register of the South Australian Museum, was collected on the River Darling, several hundred miles to the east of the northern Flinders Ranges.

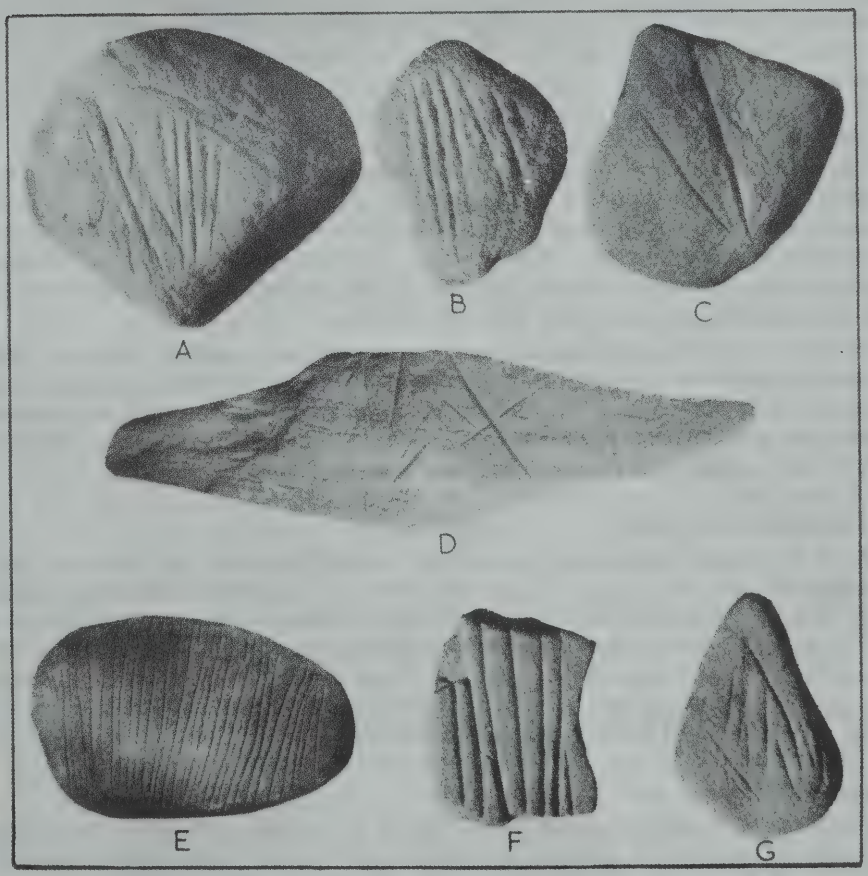
(*c*) *Engraved Pebbles.*

Another type of engraved pebble (Pl. X, Figs. A, B, C, F, G), has recently been brought to my notice. These small, more or less rounded pebbles have been engraved with deep incisions which resemble the straight-line markings of the rock faces.

During 1955, Mr. C. S. Ashley presented to the South Australian Museum a large and particularly well-tabulated collection of stone implements from Boat Harbour, New South Wales. In this extensive collection were twelve engraved stones, five typical specimens of

[1] Basedow (1914, p. 201), considers that these grooves are the result of sharpening some stone implement The fact that it is possible to make identical marks on a comparatively hard stone with the edge of an aboriginal stone axe, without blunting the implement, suggests that the marks are not the results of sharpening a stone axe, the only ground tool used by the aborigines, although it is practically certain that this implement had been used to make the incisions in the rock face.

UNUSUAL ROCK MARKINGS IN AUSTRALIA.



A, B, C, F, G, Engraved Pebbles from Boat Harbour, N.S.W.
D. Straight line marks on detached fragrant from Wabricoola, South Australia.
E. Engraved Pebble, Queensland.

which, i.e., Figs. A, B, C, F, G, are illustrated on Pl. X. Later I located another specimen, this time from Queensland, in the collection of the British Museum (Pl. X, Fig. E). The grooves in the British Museum specimen, however, which are neither as straight nor as deep as the Boat Harbour examples, appear to have been scratched into the surface. On the other hand, the incisions in the Boat Harbour examples, like the straight-line marks on Pl. X, Fig. D, have probably been cut into the pebble by the edge of a stone axe.

There is no direct evidence to indicate the function of any of the markings dealt with in this paper. It is possible that the scratched pebbles recorded by Cooper (1954, pp. 97–103) and Mountford (1938, pp. 144–6), being small and easily carried, could have been some form of tally. It may also be that the engraved pebbles illustrated on Pl. X have a similar use. The main purpose of the paper, however, is to call attention to an unrecorded type of stone artifact.

Tindale and Mountford (1926, pp. 156–9) drew attention to the resemblance between the small straight-line marks on the rocks at Morowie and those on the cylindro-conical stones of western New South Wales. Further research, however, and the discovery of large numbers of much longer marks in South Australia have made us doubt the validity of this early hypothesis.

The present evidence indicates that the straight-line marks, cut in permanent rock surfaces, are widely distributed throughout Australia, that the scratched pebbles are mostly confined to the northern Flinders Ranges, and the engraved pebbles to the eastern parts of the continent.

References

Basedow, H. (1914). Aboriginal Rock Carvings of Great Antiquity in South Australia. *Journ. Roy. Anthro. Soc. Gt. Brit.*, Vol. 44.

Cooper, H. M. (1954). Material Culture of the Australian Aborigines; Part 2. Incised Stones from South Australia. *Rec. S. Aust. Mus.*, Vol. 11, No. 2.

Mountford, C. P. (1929). Aboriginal Rock Carvings in South Australia. *Aust. Assoc. Adv. Sci., Hobart Meeting*, Vol. 19.

Mountford, C. P. (1938). Engraved Pebbles from South Australia, of Unknown Significance. *Victorian Naturalist*, Vol. 55.

Sheard, H. L. (1927). Aboriginal Rock Shelters and Carvings; Three Localities on the Lower Murray. *Trans. Roy. Soc. S. Aust.*, Vol. 50.

Tindale, N. B. and Mountford, C. P. (1926). Native Markings on Rocks at Morowie, S. Aust. *Trans. Roy. Soc. S. Aust.*, Vol. 50.

C. P. Mountford.

REVIEWS :

Comparative Studies of North American Indians. *By Harold E. Driver and William C. Massey. Transactions, American Philosophical Society, New Series, Vol. 47, Pt. 2, 1957, pp. 165–456, 162 maps, 13 diagrams. 5 dollars from Society, Independence Square, Philadelphia 6, U.S.A.*

This 300 page study of the origins of culture and culture-change among the North American Indians is one of the most remarkable contributions to ethnology that the reviewer has read. It is well printed, illustrated with excellent maps, may be read by the layman or professional anthropologist with equal pleasure and profit, and is a convincing demonstration of the method of approach employed in this highly intriguing but difficult field of anthropology.

The work is a synthesis based in part on data accumulated since the studies of culture integration written by Wissler in 1917 and by Kroeber in 1939. As the authors state, its aim is to offer a series of broad generalizations about North American Indian cultures, together with the data on which they are based, discussed in detail and presented in a magnificent series of schematic maps in which an error of 10% for the presence of absence of a trait in a culture is allowed. The time element is indicated by the inclusion on the maps of dates, where known, for the diffusion of a trait. The traits are dealt with as (1) geographical distributions of single traits or small clusters of variants on a single topic ; (2) the most obvious correlations between traits of one topic with those of another topic, treated in detail in the last chapter. The authors declare that a theory of " culture " which ignores or is unable to account for the geographical distributions presented by them falls short of the mark.

The traits dealt with have been selected chiefly on the availability of data. Each trait, the authors state, could be dealt with more intensively and the maps made more complete, but the aim has been to present adequate data for generalizations rather than to provide an exhaustive study of each trait. In section A, Subsistence, are dealt with sea mammals ; fish ; caribou and moose ; buffalo ; large and small game ; wild plants ; acorn ; hunting and maize ; wild plants and maize ; maize ; manioc ; domestic animals as food ; sedentary and nomadic life, and comparison with other subsistence areas. Other aspects of subsistence dealt with include hunting, fishing, farming, food preparation and storage, narcotics and stimulants, population, and finally the social and religious aspects of marriage. The growing, antiquity and distributions of domestic food plants are also discussed. In section, B, the subjects of transportation, housing and architecture, clothing and body ornamentation, crafts, firemaking and lamps, and weapons are discussed under Material Culture. In section C, Economics, the topics are headed division and specialization of labour, exchange and distribution, property and inheritance. In section D, Social Organisation, the discussion centres on marriage and the family, kin groups and kinship terminology. The final section is a discussion of the integration of functional, evolutionary and historical theories of cultural analysis, with the employment of statistical methods for social customs. This study overwhelmingly confirms the developmental sequence of Murdock (*Social Structure*, 1949) and many others, from the division of labour to post-nuptial residence, to descent, to kinship

terminology. It is pointed out that the history of ethnological theory bristles with conflicts among evolutionists, culture historians, and functionalists, each of whom has often explained or accounted for geographical distributions of ethnographical data in a manner not at all acceptable to the other two groups, and an adequate integration of the three approaches has seldom been attempted, and further, that the diffusionist approach does not account for unilateral descent in the first place.

The work, is therefore, most comprehensive in its scope, and its method is based on the mapping of each trait which reveals the basic and succeeding relationships of a culture. It is a volume that must have a bearing on culture analysis of all other cultures and countries, and is one that adherents of all approaches to the study of anthropology should read and ponder over because of its unbiassed search for the truth. The authors are to be congratulated upon an excellent piece of work.

F. D. McCarthy.

Village Japan. *By R. K. Beardsley, J. W. Hall and R. E. Ward. University of Chicago Press,* 1959. *Pp. xiv and* 498, *with many plates, text figures and maps. Price* $8.75.

This handsome volume contains a detailed study of Niiike, a small rice-growing settlement in Honshu, near the Inland Sea. It presents data gathered by a team of social scientists, both American and Japanese, between 1950 and 1957. The three authors—who are respectively an anthropologist, an historian and a political scientist—and a geographer undertook most of the systematic field-work from 1950 to 1954.

As Niiike numbers only 130 people, occupying and exploiting a relatively compact domain of less than 100 acres, an extraordinarily intensive investigation has been possible. The authors discuss the physique and temperament of the people, their material equipment and domestic economy, their kinship and local affiliations, and their religious and secular rituals. The analysis, however, is not restricted to the local community alone. The writers are concerned to place Niiike in the wider context of the history and culture of the island of Honshu and to show how state-wide political, economic and religious institutions flow through and affect the rural microcosm. Moreover, they assess their statistical data critically in an attempt to indicate the extent to which Niiike is representative of Japanese agricultural communities in general.

Of the book's many virtues, not the least is the vivid and almost three-dimensional picture it paints of the total pattern of village life. For social anthropologists and sociologists, probably the most satisfying features of the study are the sophisticated treatment of the economics of rice-farming and their social implications and the examination of the relationships that exist between the community and the higher-level instruments of government. However, anyone who is in any way interested in contemporary Japanese society will profit from this excellent book.

M. J. Meggitt.

CORRESPONDENCE, NOTES AND NEWS

Bandjalang Tribal Memories.

Sir,

My birthplace was in what is now known as Lismore. I was born in a gully which is to be found coming down from the hill that leads to the Lismore Base Hospital. I remember many things in connection with our tribal life. One of these was stripping the bark from the ti trees. Ten to twelve sheets of ti-tree bark usually made a good dwelling cover.

The big fires we used to have in our tribal life were the best fires I've ever seen. The wood was as a rule picked up. These fires would be made ready and it was our only way of cooking the food which the hunters would bring to the camp. They generally returned about sunset. The foods hunted for on the Richmond River were much the same as those acquired by our people elsewhere, and consisted of 'possums, wild honey, yams, kangaroos, and other edible foods to be found in the respective seasons.

One thing was forbidden to us young fellows. We could not eat the female 'possum. This was explained to us—and the reason why—when we were initiated. But back to the evening scene of the camp. The wives of the men would get the 'possums and start singeing the hair or fur off them. When this was done, they would get a stick and hit the "coals" of the fire, and the 'possum would be put on these to be cooked. This was when many of our stories or legends would be told, but the children would be playing about and enjoying their games, waiting for the 'possums to be cooked rather than listen to the stories. When the 'possums were cooked, nice green bushes would be then spread on the ground and the 'possums placed on top of these to cool. When the 'possums were sufficiently cool, the husbands of the wives would cut the 'possum open with an axe and tell their children to come and eat. Our beverage was a drink made from wild bush honey and water.

Corroborees were an entertainment, as it were. The leader of the Corroboree taught us how to join in the dancing and the reason why each particular Corroboree was being held.

One night I remember in particular. There had been a Corroboree, and when it had ended, we heard some strange noise through the night, and that was what we called the "Nadhangali Geralging." I was then a youth, and the next thing I saw was a couple of big men came to us youths and told us we had to come with them and told us if we refused to do so the penalty was *death*, not only for us but for our mothers and for our fathers as well.

We took with us the usual ti-tree bark sheets. These were used much the same as you would use blankets to sleep on, and even for cover sometimes. Strangely enough, the bark of the ti-tree is quite warm, or it was to us then. After we had out ti-tree bark, we were told to keep our eyes on the ground. We were compelled to look down. There were two big fires to be seen, but before we got near to the fires, the men put their hands over our eyes and we were blindfolded. After a while, we were told to sit down, and then their hands being removed from our eyes, we were told to look, but not to laugh and we were threatened—"If you laugh, your head will be split open with an axe." And those men sounded as if they meant it. But whether they did I shall never know. But when we did at last look, we saw men—

naked men dancing, playing jokes with one another. I can tell you it was hard, very hard, not to be able to laugh, for their very antics were comical but to laugh was more than we dared to do.

Yet it was this . . . which commenced our ceremonies of the Rite of Initiation. We could hear from the camp, the wailing and crying from the grandmothers and the mothers for their sons. But we youths could not return to them, but had to remain where we were taken, at the place away from the camp. Food would be sent to us by our mothers and fathers. For every young man or youth there was an older man in attendance—the " watchman." He ordered us not to go near the camp, or look on any person—that is, of course, any girls. And when you spoke to your own sister, you must either turn your back or look sideways, and then you spoke to her. It was the custom for the sister to place anything she had to give to her brother on the ground, and he would pick it up.

When the time came to bring the youths who had been through the Ceremony of the Initiation Rite back to the camp, there would be a big fire at the camp and when this fire was blazing at it's best, on it were thrown many green branches. And back at the place in the bush where the youths had been taken, they were now told to get ready to march back to the camp and to where the fire was lighted in the camp area. When they came to where the fire was, they would circle around the fire, while their mothers and sisters would be crying for them. Then when the fire had died down, the youths who had been initiated were told to jump on the green bushes that had been placed on the fire and stand on it for about ten minutes. Then next their grandmothers, mothers and sisters would come to them there and throw the ashes on their backs. The young men were then allowed to go back to normal tribal life.

Most people think that with every Aboriginal tribe of people the customs were the same everywhere, but this is not so. The custom of " Pointing the Bone " was not to my knowledge ever done here on the Richmond, neither have I heard of this custom being adhered to or even spoken of by the older men when I was a boy or when I passed from my boyhood to the youth stage, and the Initiation. But there was another similar custom that I remember very vividly. It concerned a *Pine* tree at what is now known as Parrot's Nest (near Lismore). To us it was known as Goorambil and where the bushes that are to be seen now, this Pine tree was. Now no one could go near to this Pine tree, because the scrub was too dense. By that I mean too close to it. But the custom in connection with it was—If you had an enemy or had cause to resent any person, you plucked a leaf from the Pine tree, and pointed the leaf at what tribe you wanted to point it at, or person as the case might be, and blood would run out of their mouths. The name Goorambil to my certain knowledge means Pine tree.

My people were the Bundjalong people. I was born in 1881, and am the last Aboriginal citizen on the Richmond to have passed through the full rite of the Initiation. Tribal life even at that time was being broken up. During my life we lived with three different tribes of people. Finally we went to Cabbage Tree Island. I can remember one of the first houses to be built at Lismore. It belonged to a Mr. John Stock. There were no houses at East Lismore.

Another incident of interest, at least to us, as it is in accordance with our beliefs of the Spirit World, was the finding of a stone, by a good friend of mine, by name, Narding.

This stone was found in the place where I was born, where my brother was also born. My friend picked up this stone, wrapped it in a fig leaf. Now this stone is a stone in which the same kind of Spirit that entered our clever men—Weeong was our name for these men—has entered this stone. There are times, not too often though, but noises can be heard coming from this stone. To those that understand, it can tell many things—and can heal as well as give messages. This is so only because that which enters the "clever man"—has entered this stone. I would like you to see this stone for your self. Perhaps this belief in this stone and its powers, is not unlike the beliefs that the white man or some white men have in the religion of the Spiritualists and their mediums.

We believed that all the themes for Corroborees were sent to those who were responsible for the Corroborees or their origin in the first place and were given to the persons concerned from the "Spirit World."

LYLE ROBERTS,
per MILDRED WORLEDGE.

Sydney,
September, 1959.

The Australian Anthropological Association

Members:

Anthropological Society of New South Wales.
Anthropological Society of the Northern Territory.
Anthropological Society of South Australia.
Anthropological Society of Queensland.
Anthropological Society of Victoria.
Anthropological Society of Western Australia.

OBJECTS.

(*a*) To promote the science of Anthropology.

(*b*) To hold biennial conferences of delegates from affiliated societies to deal with matters affecting affiliated societies generally, or the science of anthropology.

(*c*) To take public and official action in the interests of anthropology, as may be deemed desirable.

(*d*) To encourage affiliated societies to co-operate in every possible way.

The Anthropological Society of N.S.W. as such is not responsible for any opinion or declaration published in this magazine, by whomsoever expressed, unless specifically stated to be so by the Editor.

All communications, MSS., and proposed advertisements to be addressed to Mr. F. L. S. Bell, M.A., Editor, City of Sydney Public Library, George Street, Sydney.

Persons interested in the work of the Society please address correspondence to the Hon. Secretary.

The Anthropological Society of Victoria

(Founded 1932)

OFFICE-BEARERS, 1960

President: Mr. A. Massola.

Vice-Presidents: Mr. E. D. Gill, Mr. R C. Seeger.

Council:
Mr. D. J. Mulvaney, Mr. H. C. E. Stewart, Mr. C. A. S. Mansbridge, Miss L. Young, Mr. P. E. Felton, Dr. R. W. Dungan.

Hon. Treasurer: Mr. H. R. Hammet.

Hon. Secretary: Mr. A. G. C. Bingham, 28 Hawdon Street, Heidelberg, N.22.

Hon. Librarian: Mrs. C. N. Tudehope.

The Anthropological Society of Queensland

(Founded 1948)

OFFICE-BEARERS, 1960

President: Professor F. W. Robinson.

Vice-Presidents: Colonel J. K. Murray, O.B.E., Dr. B. Barrack.

Council:
Dr. L. P. Winterbotham, Professor H. J. Wilkinson, Mr. G. Mack, Mr. A. Campbell.

Hon. Treasurer: Mrs. M. H. C. McClymont, 16 Wool Street, Toowong, Brisbane.

Hon. Secretary: Mr. F. S. Colliver, c/o Geology Department, University of Queensland, St. Lucia, S.W.6.

The Anthropological Society of Western Australia

(Founded 1958)

OFFICE-BEARERS, 1960

President: R. M. Berndt, M.A., Ph.D.

Vice-Presidents: Dr. W. D. L. Ride, Mr. V. Serventy.

Council:
Mrs. M. Hodgkin, Mr. S. G. Middleton, Mr. F. W. G. Andersen, Mr. M. Wirjasudarma.

Hon. Secretary: Mr. J. Jones, 178 Kew Street, Kewdale, W.A.

Hon. Treasurer: Mr. J. R. M. Kenney.